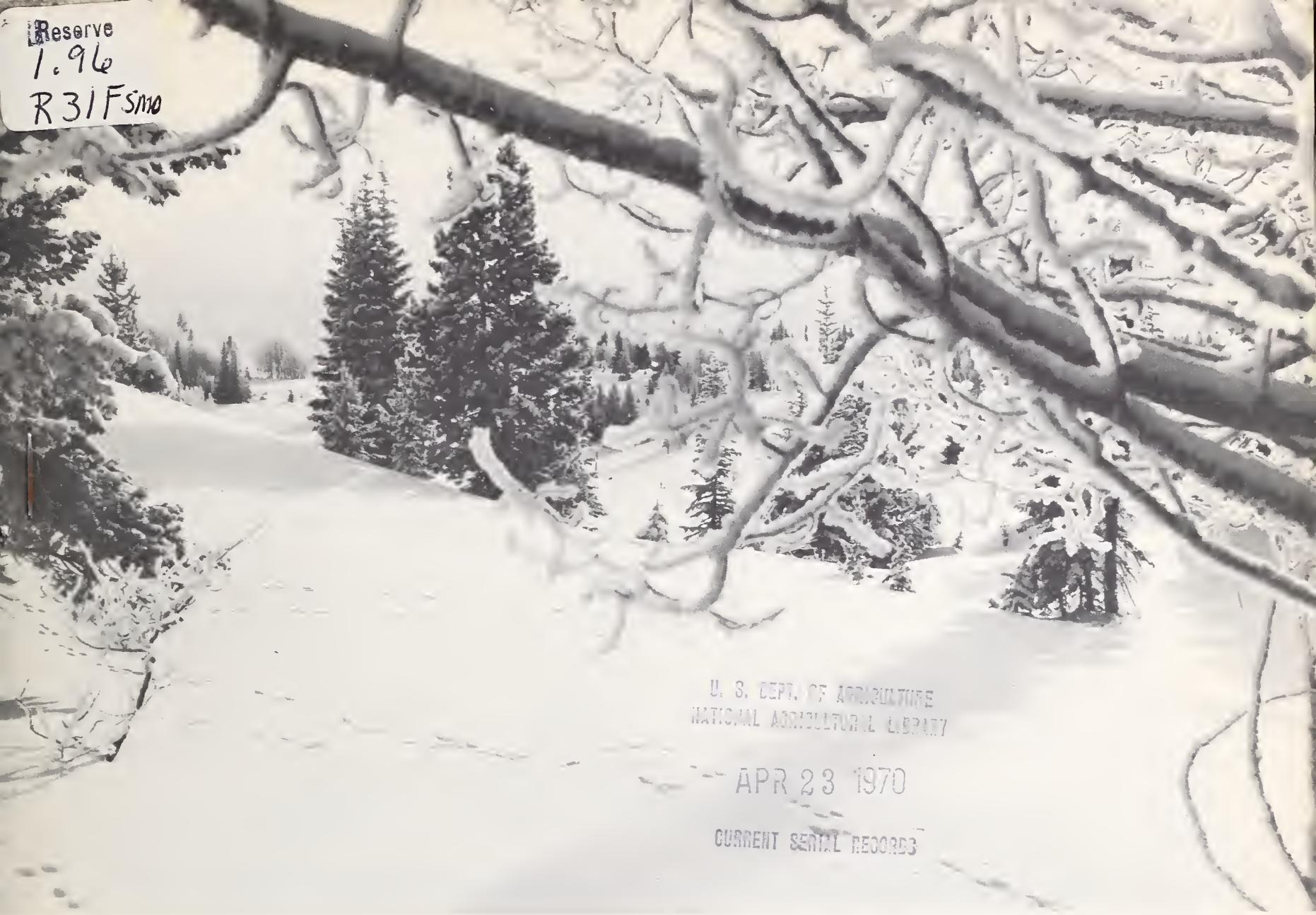


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APR 23 1970

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK FOR MONTANA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
and
MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the
agencies named above in cooperation with Federal,
State, and private organizations listed on the
inside back cover of this report.

AS OF
APR. 1, 1970

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES.

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P O Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR MONTANA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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WATER SUPPLY OUTLOOK FOR MONTANA
April 1, 1970

* Should irrigation reservoirs be operated to provide some flood *
* control, reduce streambank erosion, and improve fish habitat *
* when this operation does not interfere with or reduce irriga- *
* tion supplies?

*
* The mountain snowfall during March was well above *
* average over all Montana. Increases of 6 to 12 *
* inches water were common. The central and south- *
* central Montana snow pack is maximum of record *
* for this date. In contrast, snow pack in the *
* Kootenai River headwaters is near minimum of *
* record.
* *

COLUMBIA RIVER DRAINAGE

Snow - The monthly increase in snow cover was well above average over most of the drainages. Exceptions were the Kootenai and along the Montana-Idaho border in the Clarks Fork drainage, where only slightly above average amounts were recorded. Over the Flathead drainage, mountain snow pack is about 10 percent above average with some below average readings in the North Fork drainage. The Clark Fork, including the Bitterroot is near average. There are some deficiencies along the Idaho line north of Lolo Pass and along the Continental divide in the Blackfoot River headwaters.

Streamflow - Near average runoff is forecast for headwater streams in the Clark Fork and Bitterroot drainages. Downstream tributaries are 10 to 15 percent lower. Flathead drainages are expected to be within 10 percent of average, as is the Blackfoot. Kootenai flow will be 15 to 20 percent below average. Late season irrigation supplies are expected to be near average.

MISSOURI RIVER DRAINAGE

Snow - Mountain snowfall during March was heavy over most of the area. The northern part of the Gallatin and Bridger ranges, Castle, Little Belt, Snowy and the Crazy mountains have maximum snow pack of record for this date. In the Jefferson, Madison, upper Gallatin, Sun, Marias, Teton, Milk and St. Mary drainages, snow pack is near to a little above average. Snow cover continues to be below average along the Continental divide west of Helena.

Streamflow - Large volumes are forecast for the Gallatin, Smith, Belt, Judith and Musselshell drainages. Soils beneath the snow in these areas are wetter than normal. Snowmelt will keep streambanks full for longer than the normal period and any prolonged rainfall will cause rivers to leave their banks. Reservoirs should be regulated to hold down levels until the main runoff period. Other streams in the Missouri headwaters are forecast to have near or above average runoff. Late season irrigation water supplies are expected to be near or above average.

YELLOWSTONE RIVER DRAINAGE

Snow - Over much of the area, mountain snowfall was heavy. The largest increases were noted in the Red Lodge area and on the northern part of the Big Horn mountains.

Streamflow - Above average runoff can be expected on all streams in the Yellowstone drainages. Late season irrigation supplies should be above average. No serious problems are expected from high water unless prolonged periods of rain occur during the main melt period.



SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average

COLUMBIA RIVER DRAINAGE

Kootenai	18	74	79
Flathead	27	108	110
Upper Clark Fork	24	83	96
Lower Clark Fork	16	88	95
Bitterroot	13	96	98

MISSOURI RIVER DRAINAGE

Jefferson	28	87	113
Madison	23	86	110
Gallatin	14	143	140
Missouri Main Stem	10	114	119
Judith-Musselshell	9	164	146
Marias-Teton-Sun	11	113	107
St. Mary	3	109	97
Milk (Headwaters)	4	111	100
Milk (Cypress Hills, March 1)	4	92	140

YELLOWSTONE RIVER DRAINAGE

Yellowstone	24	134	133
Little Big Horn	7	191	159



SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +

COLUMBIA RIVER BASIN
Kootenai

Baree Trail	3800	48	7.5	4/01	6.5	6.8	6.4
Murphy Lake R. S.	3000	48	22.6	4/01	21.1	20.1	21.3
Raven R. S.	3050	48	23.0	4/02	21.5	22.0	21.8

Flathead

Desert Mountain	5600	54	8.4	3/27	6.4	8.7	7.6
Marias Pass	5250	54	6.5	3/28	4.8	5.7	5.6

Clark Fork

Black Pine	7100	48	10.0	3/31	7.4	7.9	7.3
Seeley Lake R. S.	4030	48	11.9	4/07	8.3	11.9	9.9
Skalkaho Summit	7260	48	10.8	4/02	9.4	9.8	9.7

Bitterroot

Gibbons Pass	7100	48	7.1	3/31	3.7	5.7	5.4
Lolo Pass	5250	48	10.6	3/27	5.0	6.5	6.5

MISSOURI RIVER BASIN
Beaverhead

Lakeview	6700	48	15.3	3/31	5.8	7.4	8.1
----------	------	----	------	------	-----	-----	-----

Madison

West Yellowstone	6700	48	6.5	3/28	1.5	2.9	-
------------------	------	----	-----	------	-----	-----	---

Gallatin

Bridger Bowl	7250	48	17.0	3/31	16.4	16.8	16.2
College Site	4856	54	14.5	4/03	15.2	13.6	12.1
Lick Creek	6860	48	18.8	3/30	17.3	17.1	17.2
Twenty-One Mile	7150	48	10.0	3/28	1.9	6.7	3.6

Missouri Main Stem

Kings Hill	7420	48	11.8	4/01	6.3	7.3	7.2
Stemple Pass	6350	48	5.9	3/31	3.6	4.2	4.6

Milk

Beaver Creek	3950	48	20.9	3/31	18.1	-	-
Rocky Boy	4700	36	10.1	3/31	7.3	-	-

Yellowstone

Battle Ridge	6020	48	17.6	3/31	13.5	14.2	14.0
Northeast Entrance	7350	48	9.4	3/29	5.0	7.2	6.5



RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

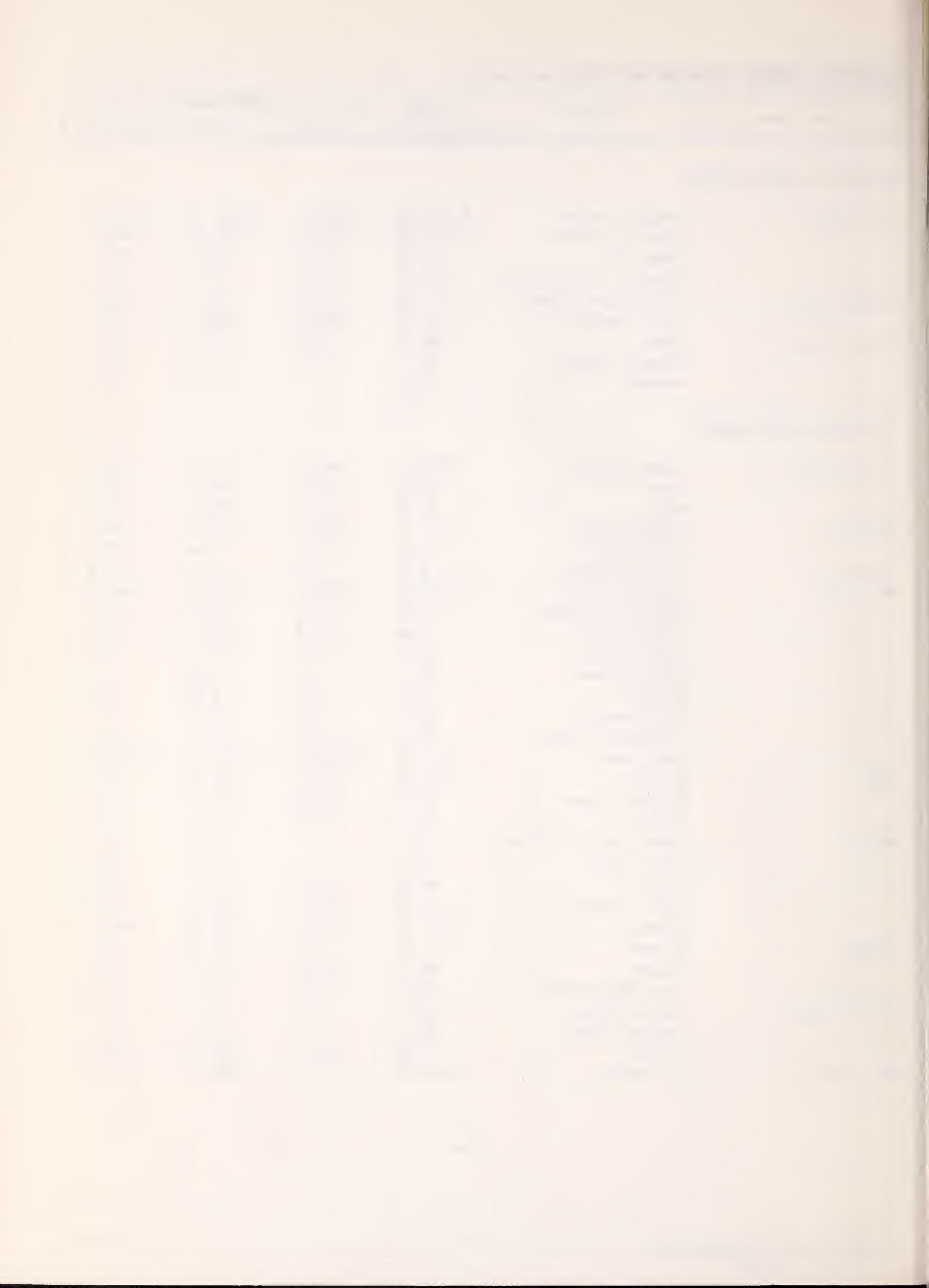
Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average

COLUMBIA RIVER BASIN

Flathead	Hungry Horse	3,428.0	1,993.0	2,201.0	2,077.0
	Flathead Lake	1,791.0	726.5	765.9	746.7
	Camas (4)	45.2	19.9	15.8	30.1
	Mission Valley (8)	100.3	27.7	77.3	35.4
Clark Fork	Georgetown Lake	31.0	24.8	24.9	22.1
	Noxon Rapids	334.6	183.5	250.1	188.0
Bitterroot	Como	34.9	13.0	21.6	13.4
	Painted Rocks	31.7	18.2	21.4	19.7
	Nevada	12.6		8.8	6.6

MISSOURI RIVER BASIN

Beaverhead	Clark Canyon	328.9	144.8	152.9	135.6
	Lima	84.0	47.3	44.1	24.2
Ruby	Ruby	38.8	36.9	30.6	29.9
Madison	Hebgen Lake	377.5	266.3	295.4	176.7
	Ennis Lake	41.0	36.7	35.4	35.5
Gallatin	Middle Creek	8.0	4.4	4.0	3.9
Missouri	Canyon Ferry	2,043.0	1,558.0	1,469.0	1,546.0
	Hauser & Helena	61.9	62.5	73.1	50.5
	Lake Helena	10.4	10.7	10.7	7.3
	Holter Lake	81.9	78.0	71.1	54.7
	Smith River	10.7	5.5	8.0	7.0
	Durand	7.0	4.0	6.0	5.0
	Martinsdale	23.1	5.2	10.3	8.0
	Deadman's Basin	72.2	33.8	49.1	48.7
	Fort Peck	19,410.0	16,200.0	16,370.0	11,050.0
Sun	Gibson	105.0	17.7	55.3	51.0
	Willow Creek	32.3	20.6	23.1	22.0
	Pishkun	32.0	17.4	16.6	17.5
Marias	Lower Two Medicine	16.6	-	12.6	0.0
	Four Horns	19.2	-	12.6	12.2
	Swift	30.0	18.5	21.4	21.5
	Lake Frances	112.0	83.3	82.4	84.2
	Tiber	1,347.0	525.3	501.8	643.7
Milk	Fresno	127.2	75.1	134.9	82.1
	Nelson	66.8	44.4	42.5	40.2
	Lake Sherburne	66.1	19.6	28.1	22.8
Yellowstone	Mystic Lake	20.8	3.8	5.2	5.0
	Tongue River	68.0	39.1	52.6	28.7
	Cooney	27.5	16.4	20.2	15.2
Big Horn	Yellowtail	1,356.0	757.1	695.3	717.4



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
<u>COLUMBIA RIVER BASIN</u>				
FISHER RIVER				
Libby (near)	250	84	Apr-Sept	358
	235	84	Apr-July	343
KOOTENAI RIVER				
Libby (at)	6400	80	Apr-Sept	9168
	5500	80	Apr-July	8230
YAAK RIVER				
Troy (near)	500	88	Apr-Sept	573
	480	88	Apr-July	549
KOOTENAI RIVER				
Leonia (at)	7160	78	Apr-Sept	10672
	6240	77	Apr-July	9626
	5000	77	Apr-June	7877
RACETRACK CREEK				
Anaconda (near)	32.7	96	Apr-Sept	34.1
	26.1	95	Apr-July	27.6
FLINT CREEK				
Boulder Creek (below)(3)	71.0	102	Apr-Sept	80.1
	56.0	102	Apr-July	63.9
MIDDLE FORK ROCK CREEK				
Philipsburg (near)	74.0	100	Apr-Sept	73.4
	66.0	100	Apr-July	66.2
NEVADA CREEK				
Finn (near)	16.0	77	Apr-Sept	20.7
	15.0	78	Apr-July	19.3
BLACKFOOT RIVER				
Bonner (near)	980	97	Apr-Sept	1079
	880	97	Apr-July	982
	760	97	Apr-June	818
CLARK FORK RIVER				
Milltown (above)(4)	770	102	Apr-Sept	889
	670	103	Apr-July	786
	577	103	Apr-June	614
CLARK FORK RIVER				
Missoula (above)	1750	99	Apr-Sept	1968
	1550	99	Apr-July	1768
	1337	99	Apr-June	1432
				1350

(3) Sum Flint Creek at Maxville and Boulder Creek at Maxville.

(4) Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.



STREAMFLOW FORECASTS

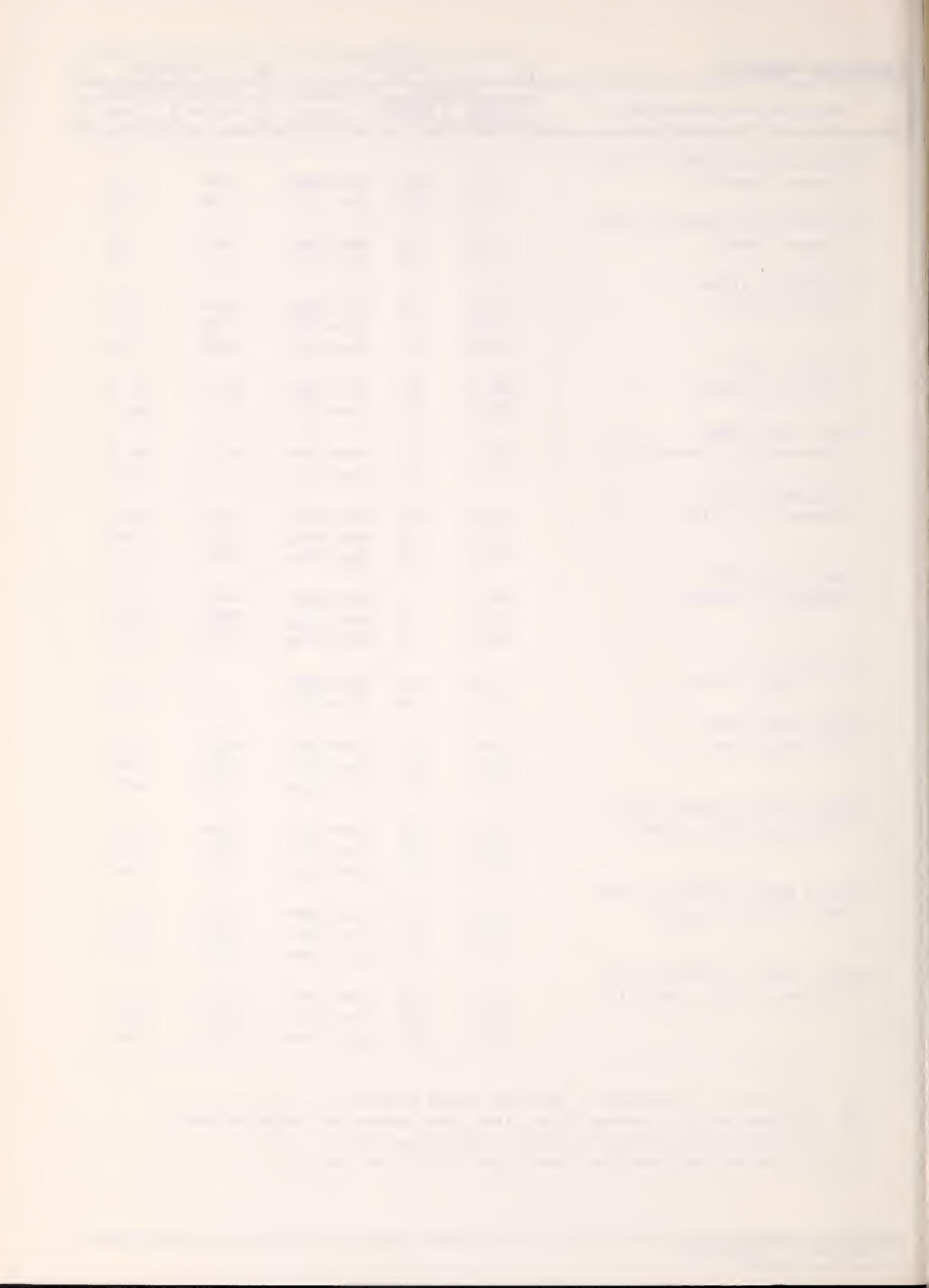
BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
WEST FORK BITTERROOT RIVER				
Conner (near) (5)	175	103	Apr-Sept	184
	162	103	Apr-July	174
EAST FORK BITTERROOT RIVER				
Conner (near)	162	95	Apr-Sept	143
	145	94	Apr-July	133
BITTERROOT RIVER				
Darby (near)	540	97	Apr-Sept	566
	500	97	Apr-July	535
	440	97	Apr-June	486
SKALKAHO CREEK				
Hamilton (near)	48.0	86	Apr-Sept	59.0
	42.0	86	Apr-July	52.5
BURNT FORK CREEK				
Stevensville (near) (10)	31.2	91	Apr-Sept	42.0
	27.0	91	Apr-July	37.1
BITTERROOT RIVER				
Missoula (at) (6)	1320	90	Apr-Sept	1503
	1225	90	Apr-July	1432
	1060	90	Apr-June	1287
CLARK FORK RIVER				
Missoula (below)	3070	95	Apr-Sept	3471
	2775	95	Apr-July	3200
	2397	95	Apr-June	2719
ST. REGIS RIVER				
St. Regis (near)	280	84	Apr-Sept	332
	267	84	Apr-July	316
CLARK FORK RIVER				
St. Regis (at)	3980	91	Apr-Sept	4687
	3620	91	Apr-July	4332
	3160	91	Apr-June	3724
NORTH FORK FLATHEAD RIVER				
Columbia Falls (near)	1800	89	Apr-Sept	2004
	1650	89	Apr-July	1860
	1400	89	Apr-June	1618
MIDDLE FORK FLATHEAD RIVER				
West Glacier (near)	1880	97	Apr-Sept	1644
	1740	97	Apr-July	1542
	1480	97	Apr-June	1217
SOUTH FORK FLATHEAD RIVER				
Columbia Falls (near) (7)	2430	103	Apr-Sept	2130
	2300	103	Apr-July	2015
	2020	103	Apr-June	1780
				1967

(5) Adjusted for storage in Painted Rocks Reservoir.

(6) Difference in observed flow Clark Fork above and below Missoula.

(7) Adjusted for storage in Hungry Horse Reservoir.

(10) Adjusted for diversion into Sunset Highline Canal.



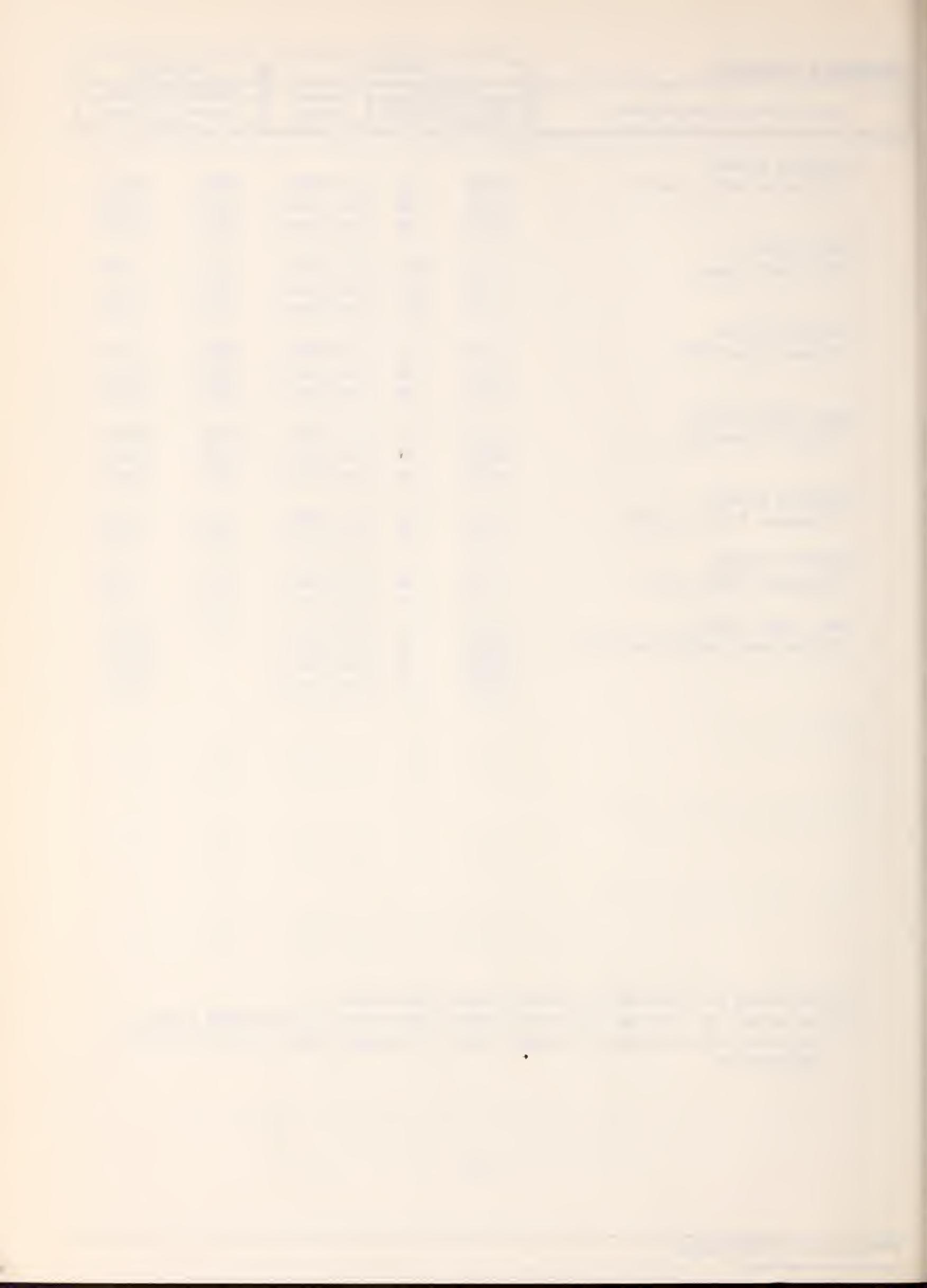
STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
FLATHEAD RIVER				
Columbia Falls (at) (7)	6230	96	Apr-Sept	5744
	5800	96	Apr-July	5393
	4950	96	Apr-June	4680
SWAN RIVER				
Big Fork (near)	725	105	Apr-Sept	632
	640	105	Apr-July	565
	522	105	Apr-June	464
FLATHEAD RIVER				
Polson (near) (8)	7240	94	Apr-Sept	7296
	6700	94	Apr-July	6856
	5750	94	Apr-June	5924
CLARK FORK RIVER				
Plains (near) (8)	11600	93	Apr-Sept	12388
	10650	93	Apr-July	11504
	9120	93	Apr-June	9877
THOMPSON RIVER				
Thompson Falls (near)	252	89	Apr-Sept	320
	225	89	Apr-July	292
PROSPECT CREEK				
Thompson Falls (at)	135	89	Apr-Sept	161
	125	88	Apr-July	153
CLARK FORK RIVER				
Whitehorse Rapids (at) (9)	13000	93	Apr-Sept	13987
	11900	93	Apr-July	12787
	10200	93	Apr-June	10953

(7) Adjusted for storage in Hungry Horse Reservoir.

(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

(9) Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
<u>MISSOURI RIVER BASIN</u>					
RED ROCK RIVER					
Monida (near)(11)	95.0	120	Apr-Sept	158	79.1
	90.0	121	Apr-July	150	74.2
BEAVERHEAD RIVER					
Armstead (near)(11)(12)	129	122	Apr-Sept	215	106
	110	122	Apr-July	203	90.0
RUBY RIVER					
Alder (near)	100	125	Apr-Sept	111	80.0
	84.0	125	Apr-July	95.6	67.0
BIG HOLE RIVER					
Melrose (near)	774	112	Apr-Sept	828	690
	720	112	Apr-July	787	642
BIRCH CREEK					
Glen (near)	15.2	116	Apr-Sept	18.7	13.1
	12.8	116	Apr-July	16.0	11.0
BOULDER RIVER					
Boulder (near)	83.5	106	Apr-Sept	102	78.9
	80.0	106	Apr-July	97.8	75.5
JEFFERSON RIVER					
Sappington (at)(12)	1080	114	Apr-Sept	1285	948
	980	114	Apr-July	1208	857
WILLOW CREEK					
Harrison (near)	19.2	124	Apr-Sept		15.1
	17.5	123	Apr-July		14.2
MADISON RIVER					
West Yellowstone (near)	220	104	Apr-Sept	241	212
	168	105	Apr-July	183	160
MADISON RIVER					
Grayling (near)(13)	452	105	Apr-Sept	573	430
	356	106	Apr-July	464	337
MADISON RIVER					
McAllister (near)(14)	865	118	Apr-Sept	962	734
	701	119	Apr-July	778	587
GALLATIN RIVER					
Gateway (near)	605	131	Apr-Sept		461
	520	132	Apr-July		393

(11) Adjusted for storage in Lima Reservoir.

(12) Adjusted for storage in Clark Canyon Reservoir.

(13) Adjusted for storage in Hebgen Lake.

(14) Adjusted for storage in Hebgen and Ennis Lakes.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
HYALITE CREEK					
Bozeman (near) (15)	57.0	152	Apr-Sept	37.4	
	50.0	154	Apr-July	32.5	
GALLATIN RIVER					
Logan (at)	754	159	Apr-Sept	473	
	640	159	Apr-July	401	
MISSOURI RIVER					
Toston (at) (16)	2680	127	Apr-Sept	2105	
	2340	127	Apr-July	1836	
SHEEP CREEK					
White Sulphur Springs (near)	27.0	147	Apr-Sept	18.4	
	23.5	147	Apr-July	16.0	
SMITH RIVER					
Eden (near)	330	184	Apr-Sept	179	
	302	184	Apr-July	165	
SUN RIVER					
Gibson Dam (at) (17)	600	99	Apr-Sept	509	604
	550	99	Apr-July	467	555
BELT CREEK					
Monarch (near)	196	180	Apr-Sept	109	
	180	180	Apr-July	100	
MISSOURI RIVER					
Fort Benton (at) (18)	4200	126	Apr-Sept	3321	
	3580	126	Apr-July	2834	
TWO MEDICINE CREEK					
Browning (near) (19)	240	94	Apr-Sept	256	
	230	94	Apr-July	245	
BADGER CREEK					
Browning (near)	121	91	Apr-Sept	133	
	105	91	Apr-July	116	
CUT BANK CREEK					
Cut Bank (at)	112	94	Apr-Sept	120	
	104	94	Apr-July	111	
MARIAS RIVER					
Shelby (near) (20)	550	91	Apr-Sept	474	604
	530	91	Apr-July	472	581

(15) Adjusted for storage in Middle Creek Reservoir.

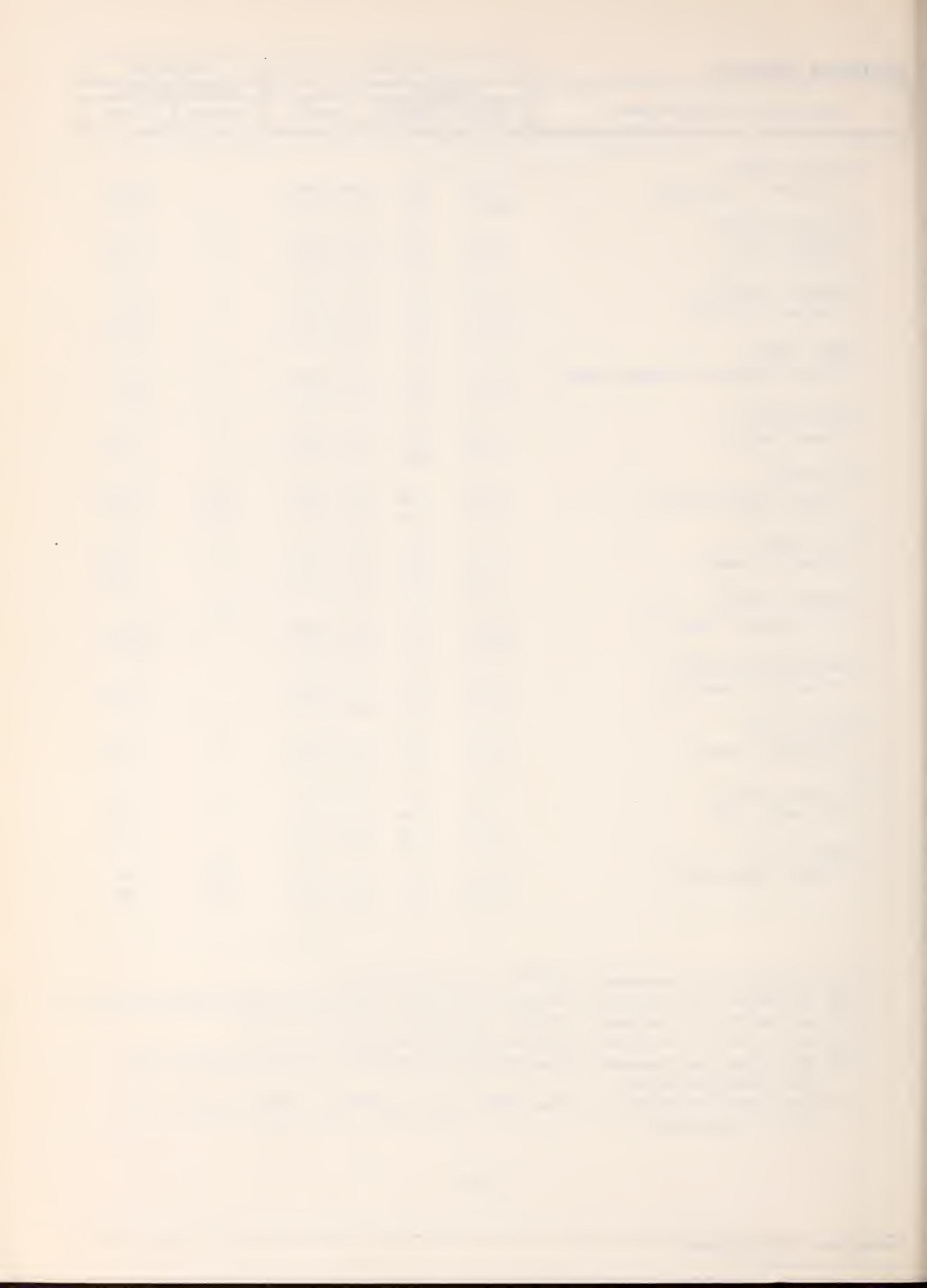
(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.

(17) Adjusted for storage in Gibson Reservoir and diversions.

(18) Adjusted for storage in Canyon Ferry Reservoir.

(19) Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.

(20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.



STREAMFLOW FORECASTS

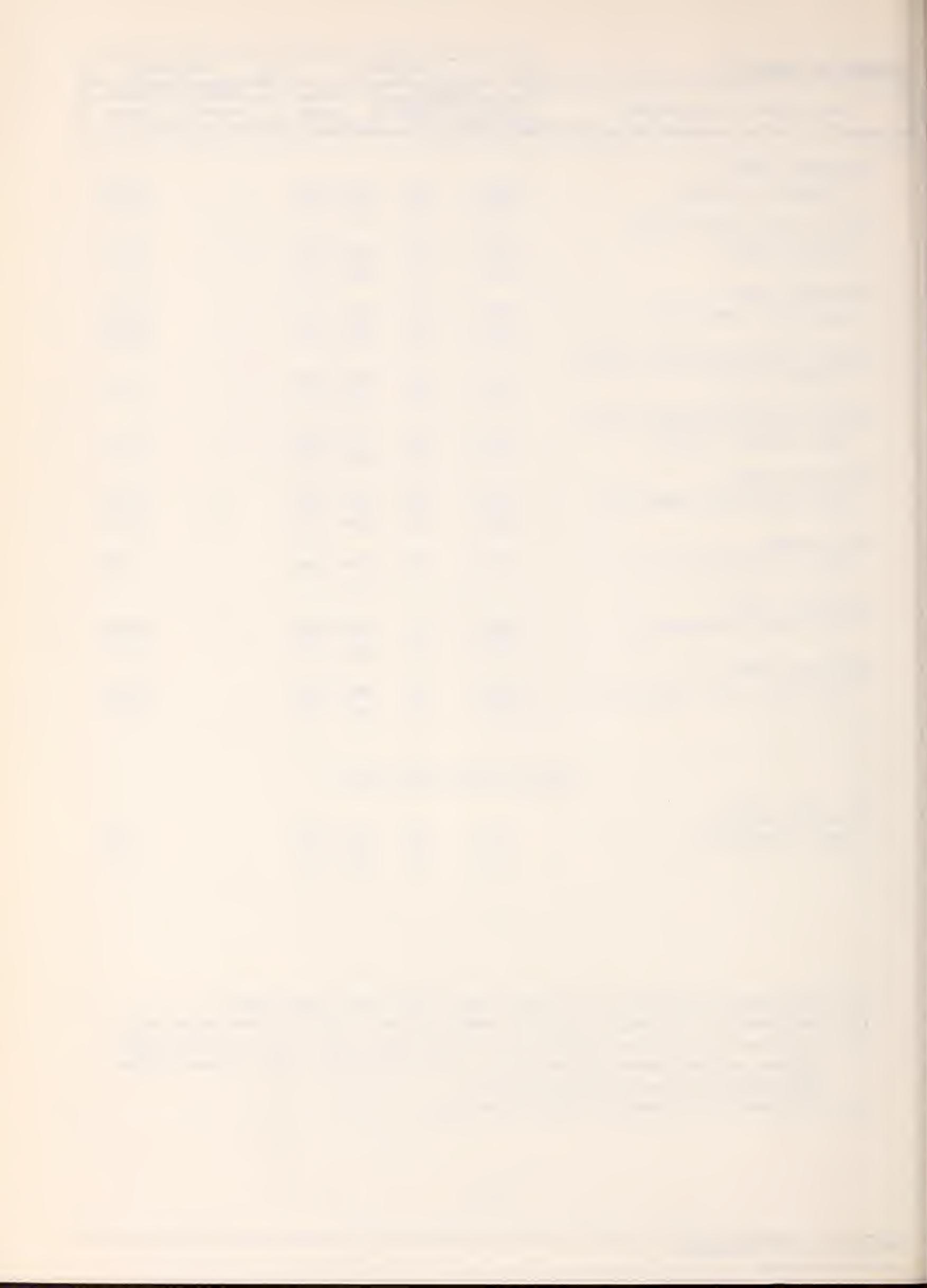
BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
MISSOURI RIVER				
Virgelle (at) (21)	4850	120	Apr-Sept	4036
	4220	120	Apr-July	3511
SOUTH FORK JUDITH RIVER				
Utica (near)	26.3	211	Apr-Sept	12.5
	24.7	211	Apr-July	11.7
MISSOURI RIVER				
Landusky (near) (21)	5350	120	Apr-Sept	4484
	4650	120	Apr-July	3889
NORTH FORK MUSSELSHELL RIVER				
Delpine (near)	9.4	170	Apr-Sept	5.5
	8.0	170	Apr-July	4.7
SOUTH FORK MUSSELSHELL RIVER				
Martinsdale (above)	73.6	159	Apr-Sept	46.2
	70.0	159	Apr-July	44.0
MISSOURI RIVER				
Fort Peck Dam (below) (22)	5180	120	Apr-Sept	4312
	4600	120	Apr-July	3824
MILK RIVER				
Eastern Crossing (at)	256	98	Apr-Sept	262
MISSOURI RIVER				
Wolf Point (near) (22)	5500	117	Apr-Sept	4683
	4900	117	Apr-July	4146
MISSOURI RIVER				
Williston, N.D. (near) (29)	12800	116	Apr-Sept	10998
	11400	116	Apr-July	9823

SASKATCHEWAN RIVER BASIN

ST. MARY RIVER

Babb (near) (30)	432	88	Apr-Sept	492
	375	88	Apr-July	427

(21) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.
 (22) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
 (29) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.
 (30) Adjusted for storage in Lake Sherburne.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year

YELLOWSTONE RIVER BASIN

YELLOWSTONE RIVER

Corwin Springs (at)	2150	114	Apr-Sept	2091	1880
	1800	114	Apr-July	1796	1575

YELLOWSTONE RIVER

Livingston (near)	2520	119	Apr-Sept		2122
	2100	119	Apr-July		1769

BOULDER RIVER

Big Timber (at)	395	114	Apr-Sept		347
	370	113	Apr-July		327

STILLWATER RIVER

Absarokee (near)(25)	645	116	Apr-Sept		558
	555	117	Apr-July		474

CLARKS FORK RIVER

Chance (at)	635	109	Apr-Sept		582
	580	109	Apr-July		530

ROCK CREEK

Red Lodge (near)	117	110	Apr-Sept	103	106
	92.0	112	Apr-July	76.6	82.1

YELLOWSTONE RIVER

Billings (at)	4650	118	Apr-Sept	4160	3944
	4100	120	Apr-July	3664	3400

BIG HORN RIVER

St. Xavier (near)(26)	1720	100	Apr-Sept	1620	1719
	1625	100	Apr-July	1549	1625

LITTLE BIG HORN RIVER

Lodgegrass (near)(28)	192	156	Apr-Sept		123
	170	156	Apr-July		109

YELLOWSTONE RIVER

Miles City (at)(27)	6670	114	Apr-Sept		5850
	5900	114	Apr-July		5177

YELLOWSTONE RIVER

Sidney (near)(27)	6800	112	Apr-Sept		6069
	6100	112	Apr-July		5454

(25) Adjusted for storage in Mystic Lake.

(26) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake and Yellowtail Reservoirs.

(27) Adjusted for storage in Buffalo Bill, Boysen and Yellowtail Reservoirs.

(28) Sum Little Big Horn below Pass Creek and Lodgegrass Creek near Wyola.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR		PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)
				Last Year	Average

COLUMBIA RIVER BASINKOOTENAI RIVER

Bald Eagle Peak	5700	4/03	133	54.7	76.5	-
Banfield Mountain	5600	3/31	59	23.3	28.5	-
Banfield Mountain Pillow	5600	3/31	SP	19.3	25.1	-
Baree Creek	5500	4/01	112	42.6	49.5	49.6
Baree Midway	4600	4/01	94	35.5	41.2	-
Baree Trail	3800	4/01	32	13.2	17.8	7.8
Bear Mountain	5400	4/02	128	54.4	75.5	-
Bristow Creek	3900	3/31	35	13.7	17.9	-
Brush Creek	5000	3/26	41	13.0	13.9	13.1
Brush Creek Timber	5000	3/26	36	11.5	12.4	11.7
Cedar Grove	4100	4/03	40	13.5	14.9	-
Davis Creek	5400	4/01	55	21.5	30.1	-
Fernie	3500	3/31	23	7.6	-	8.8
Field	4200	3/30	15	3.1	4.4	5.8
Garver Creek	4250	4/01	32	11.1	17.2	-
Garver Creek Pillow	4250	4/01	SP	9.0	13.1	-
Glacier	4100	3/26	66	22.4	27.0	28.7
Graves Creek	4300	3/30	53	18.9	21.1	19.5
Gray Creek	5100	3/30	40	11.4	17.1	19.2
Halverson Creek	4850	4/02	105	41.6	58.0	-
Hawkins Lake	6450	4/01	63	23.4	39.4	-
Hawkins Lake Pillow	6450	4/01	SP	21.4	35.3	-
Keeler Creek	3300	4/02	29	11.4	21.4	-
Kicking Horse	5400	3/29	35	9.4	12.6	15.2
Kimberley	3800	3/29	16	4.8	9.4	7.5
Lost Soul	4800	3/31	45	16.5	20.5	-
Marble Canyon	5000	3/30	33	6.6	13.4	13.2
Morrissey Ridge	6100	3/30	57	19.9	31.4	29.4
New Fernie	4100	3/31	38	13.1	-	15.8
Poorman Creek	5100	4/03	86	33.3	48.5	-
Poorman Creek Pillow	5100	4/03	SP	19.2	35.6	-
Red Mountain	6000	3/30	48	16.1	23.3	20.3
Sinclair Pass	4500	3/30	16	3.2	6.1	5.2
Stahl Peak	6050	3/30	95	35.1	44.2	-
Sullivan Mine	5100	3/30	33	10.0	18.7	14.6
Upper Elk River	4400	3/26	17	5.0	9.2	7.4
Weasel Divide	5450	3/30	80	30.0	39.0	35.3

SP - Snow pillow observation - water content only.

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (inches)	Water Content (inches)	Water Content (inches)	Last Year
NAME	Elevation					Average
<u>FLATHEAD RIVER</u>						
Bassoo Peak	5150	4/01	39	12.8	14.4	12.2
Beaver Lake	5900				23.6	24.0
Big Creek	6750	4/01	134	51.2	45.8	46.7
Camp Misery	6400	3/31	134	51.6	51.7	46.8
Desert Mountain	5600	3/27	44	16.7	18.1	16.3
Fatty Creek	5500	4/01	87	29.8	24.2	22.8
Griffin Creek Divide	5150	4/01	42	13.2	13.8	12.6
Gunsight Lake	6300				38.6	41.0
Hell Roaring Divide	5770	3/31	83	31.4	33.5	33.1
Holbrook	4530	4/03	34	11.4	12.0	10.4
Kishenehn	3890	3/25	27	7.1	10.3	9.6
Logan Creek	4300	3/26	28	8.4	9.3	8.6
Marias Pass	5250	3/26	67	20.1	17.0	18.8
Mineral Creek	4000	4/01	58	19.0	19.7	21.4
Noisy Creek	3600	3/31	20	7.6	-	-
North Fork Jocko	6330	4/03	141	49.6	44.8	47.2
Spotted Bear Mountain	7000				12.3	15.1
Trinkus Lake	6100				42.0	44.2
Twin Creeks	3580				9.4	11.4
Upper Holland Lake	6200				35.2	36.1
<u>CLARK FORK RIVER</u>						
Black Pine	7100	3/31	47	13.4	17.6	14.1
Black Pine Pillow	7100	3/31	SP	13.3	16.0	14.1
Combination	5600	3/31	24	6.2	-	-
Copper Creek	5700	4/06	42	14.6	16.2	15.1
Cotter Mine	6250	4/06	57	23.6	21.8	17.2
Coyote Hill	4200	4/02	45	14.2	9.4	10.4
El Dorado Mine	7800	4/03	90	25.0	26.1	21.2
Fred Burr Pass	8000	3/31	79	24.8	28.6	26.6
Gold Creek Lake	7200	4/03	68	17.6	19.8	15.9
Heart Lake Trail	4800	3/27	57	20.8	25.0	23.0
Hoodoo Basin	6000	3/27	122	47.8	56.1	-
Hoodoo Basin Pillow	6000	3/31	SP	48.1	-	-
Hoodoo Creek	5900	3/27	117	44.1	52.4	50.6
Intergaard	6450	4/01	31	7.9	9.2	8.5
Lookout	5250	3/31	98	34.6	44.7	38.4
Lubrecht Forest No. 3	5450	4/01	26	7.6	10.6	7.4
Lubrecht Forest No. 4	4650	4/01	11	3.5	6.8	2.9
Lubrecht Forest No. 6	4040	4/01	8	3.0	6.2	3.0
Red Lion	7100	3/31	58	16.5	18.4	16.6
Skalkaho Summit	7260	4/02	85	27.2	28.8	26.4
Slide Rock Mountain	7100	4/01	51	15.0	18.2	15.4
Southern Cross	6500	4/01	27	6.8	7.2	7.4
Storm Lake	7780	3/30	57	14.0	16.3	14.6
Stuart Mill	6500	4/01	29	7.1	7.9	7.1
Stuart Mountain	7400	3/31	95	34.0	-	32.2
TV Mountain	6800	3/30	64	20.7	22.6	18.5

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					Average

BITTERROOT RIVER

Ambrose	6480	3/26	43	11.6	13.8	13.7
Coyote Meadows Trail	7000	4/02	62	19.8	20.8	-
East Fork R. S.	5400	3/31	19	6.2	5.8	7.1
Gibbons Pass	7100	3/26	70	24.3	27.0	23.0
Kit Carson	5020	4/01	30	10.2	9.2	8.6
Lolo Pass	5230	3/25	82	30.4	31.0	33.8
Lost Horse	5940	3/30	95	32.9	32.9	33.0
Moose Creek	6200	3/30	58	17.9	18.2	16.2
Nez Perce Camp	5680	4/01	52	16.4	14.6	15.2
Nez Perce Pass	6570	4/01	58	18.8	17.4	16.8
Saddle Mountain	7940	3/31	78	26.4	28.6	25.8
Saddle Mountain Pillow	7940	3/31	SP	27.6	31.2	-
Savage Pass	6600	3/26	70	23.3	28.0	28.6
Twelvemile Creek	5600	3/30	68	24.1	21.7	-
Twelvemile Creek Pillow	5600	3/30	SP	19.8	19.2	-
Twin Lakes	6510	3/30	116	40.7	42.1	45.0
Twin Lakes Pillow	6400	3/30	SP	41.5	40.2	-

SP - Snow pillow observation - water content only.

1. *Georgian*

2. *French*

3. *Spanish*

4. *Portuguese*

5. *Italian*

6. *Swiss*

7. *French*

8. *Spanish*

9. *Portuguese*

10. *Italian*

11. *Swiss*

12. *French*

13. *Spanish*

14. *Portuguese*

15. *Italian*

16. *Swiss*

17. *French*

18. *Spanish*

19. *Portuguese*

20. *Italian*

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD		
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year	Average

MISSOURI RIVER BASINBEAVERHEAD RIVER

Bloody Dick	7600	4/02	40	12.4	13.6	11.1
Blue Ledge Mine	6700	3/29	50	17.0	36.0	15.1
Camp Creek	6800	3/30	35	9.6	22.5	9.0
Carter Creek	7400	3/30	36	8.9	5.3	5.8
Dad Creek Lake	8400				17.6	13.0
Elk Horn Springs	7800	3/31	40	10.0	12.4	9.8
Gold Stone	8100	4/02	53	17.2	18.0	14.8
Kilgore	6200	3/29	42	14.1	19.9	8.9
Lakeview Canyon	6930	3/30	41	11.5	24.2	11.5
Lakeview Ridge	7400	3/30	36	11.3	21.0	10.0
Lemhi Pass	7480	4/01	38	9.5	12.1	8.5
Lemhi Ridge	8100	4/01	37	9.4	11.2	-
Sawtelle Mountain	8715	3/31	98	34.8	49.4	-
Trail Creek	7090	4/01	34	8.6	11.6	8.4
White Pine Ridge	8850				5.8	5.2

RUBY RIVER

Branham Lakes	8850	3/31	104	36.0	33.5	-
Clover Meadow	8600				19.7	16.0
Divide	7900				16.2	9.7
Middle Mill Creek	7850	3/31	70	21.0	19.0	-
Notch	8500				19.6	13.6
Smuggler Mine	6960	3/31	51	13.6	12.2	-

BIG HOLE RIVER

Abundance Lake	8800				24.4	19.8
Calvert Creek	6450	4/03	48	13.6	-	-
Darkhorse Lake	8600				30.6	27.0
Foolhen	8280				20.1	17.8
Jahnke Lake Trail	7200	4/02	40	11.8	-	-
Mudd Lake	7650	4/03	58	18.4	23.6	-
Palisade Creek	8250	4/03	94	32.9	34.6	-
Slag-A-Melt Lake	8750				29.8	-

JEFFERSON RIVER

Berry Meadow	7300	3/27	30	7.7	8.6	7.6
Copper Mountain	7700	3/31	47	12.9	11.7	-
Nez Perce Creek	6500	3/31	26	6.8	7.6	-
Picnic Grounds	6500	4/01	24	5.0	6.2	4.6
Pipestone Pass	7200	3/30	27	6.0	7.8	6.0
Rocker Peak	8000	3/27	56	16.0	16.4	-
Rocker Peak Pillow	8000	3/27	SP	14.6	16.0	-
Uncle Sam Gulch	6500	3/27	31	8.4	7.4	-

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
NAME	Elevation					

MADISON RIVER

Big Springs	6500	3/31	67	23.2	27.2	20.8
Black Canyon	7850	3/28	98	35.6	42.6	34.6
Black Moose	8125	3/28	107	39.2	47.0	40.4
Call Road	8050				10.9	10.8
Four Mile	6900	3/30	44	10.0	10.4	8.0
Hebgen Dam	6550	3/31	47	13.6	12.3	11.3
Island Park	6315	3/31	58	19.4	23.4	15.6
Jack Creek	7500	3/31	30	7.2	6.0	6.0
Lake Creek	6100	4/01	34	10.6	11.2	7.8
Latham Springs	7650	3/28	97	33.6	40.2	33.5
Lion Mountain	8760	3/30	69	21.7	28.2	-
Lion Mountain Pillow	8760	3/30	SP	15.6	-	-
Lower Twin	7900	3/30	88	25.2	22.9	19.0
Lucky Dog	6900	3/28	80	26.4	30.8	24.8
Madison Plateau	7750	3/31	67	23.6	31.6	-
Madison Plateau Pillow	7750	3/31	SP	25.2	32.0	-
Meridian Creek	7000	4/01	38	11.1	16.8	9.5
Norris Basin	7500	4/02	34	12.3	11.9	10.1
North Meadow	7500	3/30	44	9.6	11.2	7.9
Old Road	7250	3/28	85	29.8	34.8	27.3
Poachers Cabin	8000	3/28	95	30.6	40.6	33.6
Potomageton Park	7150	3/30	53	15.4	20.2	15.4
Sentinel Creek	8300	3/30	81	25.0	30.8	23.6
Soap Bogus Divide	7600	4/01	62	20.6	23.7	-
Targhee Pass	7000	3/31	52	15.6	27.0	13.8
Tepee Creek	8000	4/01	55	17.6	25.2	13.4
Valley View	6500	3/31	51	16.4	28.1	15.9
West Yellowstone	6700	3/31	39	12.3	17.0	10.8
West Yellowstone Pillow	6700	3/28	SP	7.3	12.6	-
Whiskey Creek	6800	3/31	64	22.0	30.6	-

GALLATIN RIVER

Arch Falls	7350	3/30	68	19.2	11.6	12.6
Bear Basin	8150	3/27	85	26.4	21.0	20.2
Bridger Bowl	7250	3/31	106	38.6	26.6	27.6
Bridger Bowl Pillow	7250	3/31	SP	36.8	25.8	26.6
Carrot Basin	9000	4/01	105	39.9	49.4	-
Carrot Basin Pillow	9000				36.3	-
Devils Slide	8100	3/30	105	32.6	20.2	22.4
Hood Meadow	6600	4/01	54	16.2	7.1	9.8
Lick Creek	6860	3/30	62	15.5	6.0	10.2
Lick Creek Pillow	6860	3/30	SP	15.7	6.2	10.1
Little Park	7400	3/27	64	19.3	16.4	15.4
Maynard Creek	6210	3/31	77	26.4	16.2	-
Maynard Creek Pillow	6210	3/31	SP	17.6	11.5	-
New World	6700	3/30	57	17.3	11.6	11.0
Shower Falls	8100	3/30	112	36.7	25.8	26.8
Shower Falls Pillow	8100	3/30	SP	32.0	22.1	23.5
Twenty-One Mile	7150	3/31	53	17.0	26.2	17.4



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					Average

MISSOURI RIVER (MAIN STEM)

Boulder Mountain	7950	3/30	70	22.7	18.4	16.8
Chessman Reservoir	6200	3/26	19	4.1	5.8	4.2
Deadman Creek	6450	4/01	62	18.1	10.8	-
Deadman Creek Pillow	6450	4/01	SP	15.4	9.5	-
Elk Peak	8000	3/31	71	22.0	14.2	16.9
Grasshopper	7000	3/31	28	7.0	7.0	5.4
Kings Hill	7500	3/30	74	21.7	12.7	13.2
Stemple Pass	6600	3/26	37	8.6	10.5	10.8
Ten Mile Lower	6600	3/26	26	5.9	7.8	6.9
Ten Mile Middle	6800	3/25	37	9.4	12.6	10.8
Ten Mile Upper	8000	3/25	46	13.1	16.5	14.0

SUN-TETON-MARIAS RIVERS

Badger Pass	6900				38.6	37.2
Blue Lake	5900				29.0	-
Cabin Creek	5200	3/31	26	6.6	8.2	7.3
Five-Bull	5700				11.2	6.9
Freight Creek	6000				14.7	16.6
Goat Mountain	7000	4/05	36	11.0	13.4	11.7
Mount Lockhart	6400	3/27	75	24.0	19.5	-
Mount Lockhart Pillow	6400	3/27	SP	29.8	17.4	-
Waldron	5600	3/27	47	12.0	9.8	-
Waldron Pillow	5600	3/27	SP	11.5	11.3	-
Wrong Creek	5700	4/03	47	14.1	12.0	16.0
Wrong Ridge	6800	4/02	64	23.1	17.3	21.9

JUDITH RIVER

Avalanche	7100	4/02	112	36.0E	17.4	-
Crystal Lake	6100	4/02	80	23.8	9.0	12.8
Rock Creek	5600	4/02	56	16.0	7.0	-
Spur Park	8000	4/01	85	29.1	20.2	21.5
Spur Park Pillow	8000	4/01	83	28.2	19.0	-

MUSSELSHELL RIVER

Daisy Peak	7600	3/24	43	12.3	10.4	-
Eagle Creek	7000	3/23	62	19.0	11.7	-
Forest Lake	6400	3/23	53	16.0	10.2	-
Haymaker	8050	3/30	65	17.6	12.8	-
Johnson Park	6450	3/24	28	8.0	6.6	-

SP - Snow pillow observation - water content only.

E - Estimated water content.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					

MILK RIVER

Bear Paw Ski Area	5200	3/31	37	12.0	-	-
Rocky Boy	4700	3/31	27	6.6	4.8	4.5
Rocky Boy Pillow	4700	3/31	SP	6.5	5.4	-

ST. MARY RIVER

Hudson Bay Divide	5800	3/31	62	18.0	15.7	18.9
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SASKATCHEWAN (BOW) RIVER

Bow River #1	5100	3/24	23	4.7	7.7	9.4
Chateau Lawn #8	5700	3/24	30	6.0	12.2	11.3
Mirror Lake #6	6600	3/24	28	6.0	12.6	12.7
Mount Eisenhower #10	5000	3/25	12	2.9	6.2	4.9
Upper Pipestone #2	5300	3/23	22	4.3	8.2	9.0

UPPER YELLOWSTONE RIVER

Bald Ridge	7500	4/02	58	18.2	11.1	12.5
Camp Senia	7890	3/31	55	11.4	5.5	6.4
Canyon	7750	4/06	51	16.3	18.0	16.1
Cooke Station	8150	3/26	70	23.9	21.0	-
Crevice Mountain	8400	3/25	38	11.3	11.0	8.8
East Entrance	7000	3/30	36	10.0	8.7	9.7
Fisher Creek	9100	3/26	108	41.0	39.8	-
Fisher Creek Pillow	9100	3/26	SP	38.4	35.0	-
Grizzly Peak	8400	3/30	95	19.4	10.2	16.5
Independence	8000	4/02	61	20.0	18.8	18.2
Lake Camp	7850	3/31	37	8.5	14.0	9.9
Lodgepole	8200	3/30	41	10.2	10.7	10.8
Lupine Creek	7300	4/04	40	11.6	10.9	10.3
Mill Creek	7500	3/31	62	18.7	12.7	-
Monument Peak	9000	4/02	82	28.4	26.6	24.8
Northeast Entrance	7400	3/29	41	10.8	9.2	9.1
Northeast Entrance Pillow	7350	3/29	SP	11.6	9.3	-
Porcupine R. S.	6500	4/02	40	11.7	6.1	7.6
Sacajawea	6550	3/31	68	23.0	15.4	13.0
South Fork Shields	8100	4/02	92	32.8	20.6	24.1
Sylvan Pass	7100	3/30	50	15.5	14.2	13.4
Thumb Divide	7900	3/30	58	23.2	27.4	22.5
Timberline Creek	8850	3/31	84	18.4	13.0	15.5
West Rosebud	7500	4/01	48	13.4	-	10.6
White Mill	8700	3/26	85	31.2	29.4	-

SP - Snow pillow observation - water content only.

SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

KOOTENAI

JUL.

JUN.

MAY

APR.

MAR.

FEB.

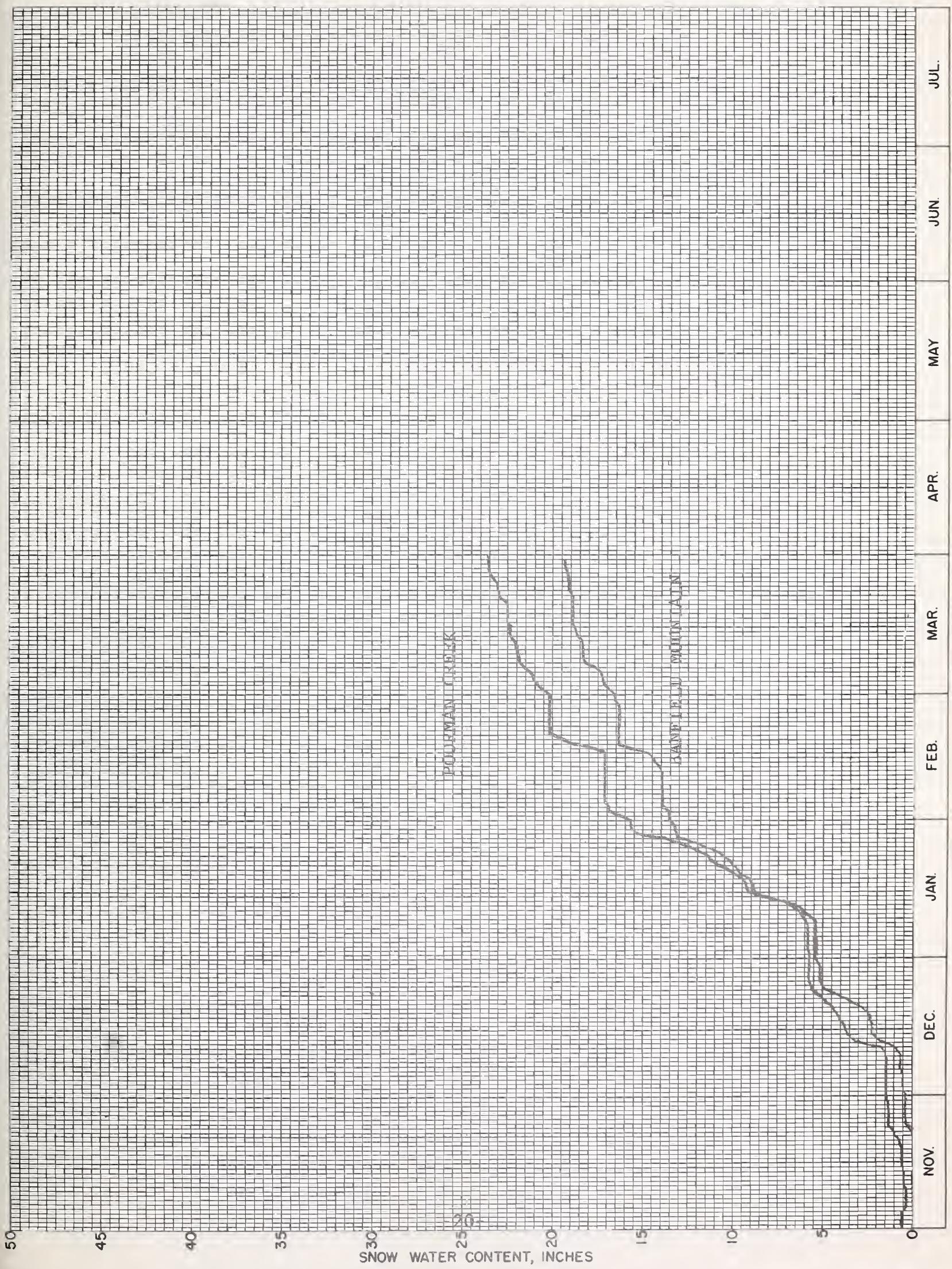
JAN.

DEC.

NOV.

POULMAN CREEK

LANE FIELD, MOUNTAIN LAKE





SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

KOOTENAI

JUL.

JUN.

MAY

APR.

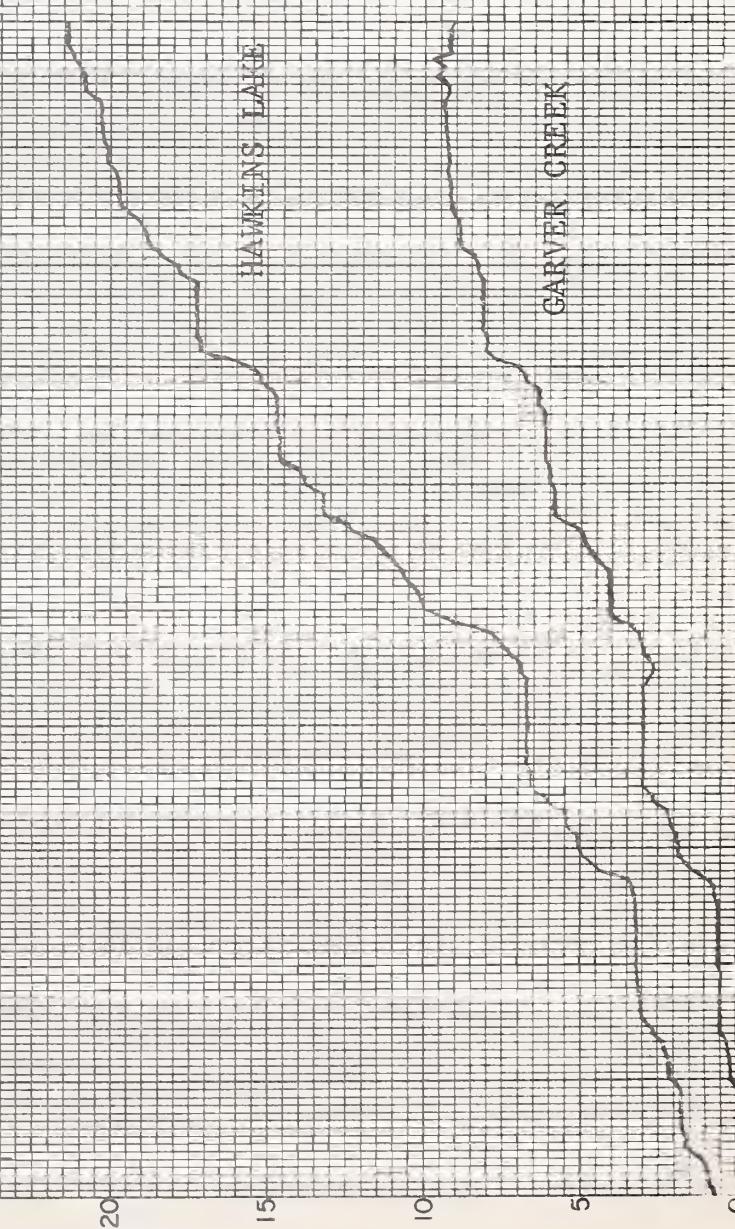
MAR.

FEB.

JAN.

DEC.

NOV.



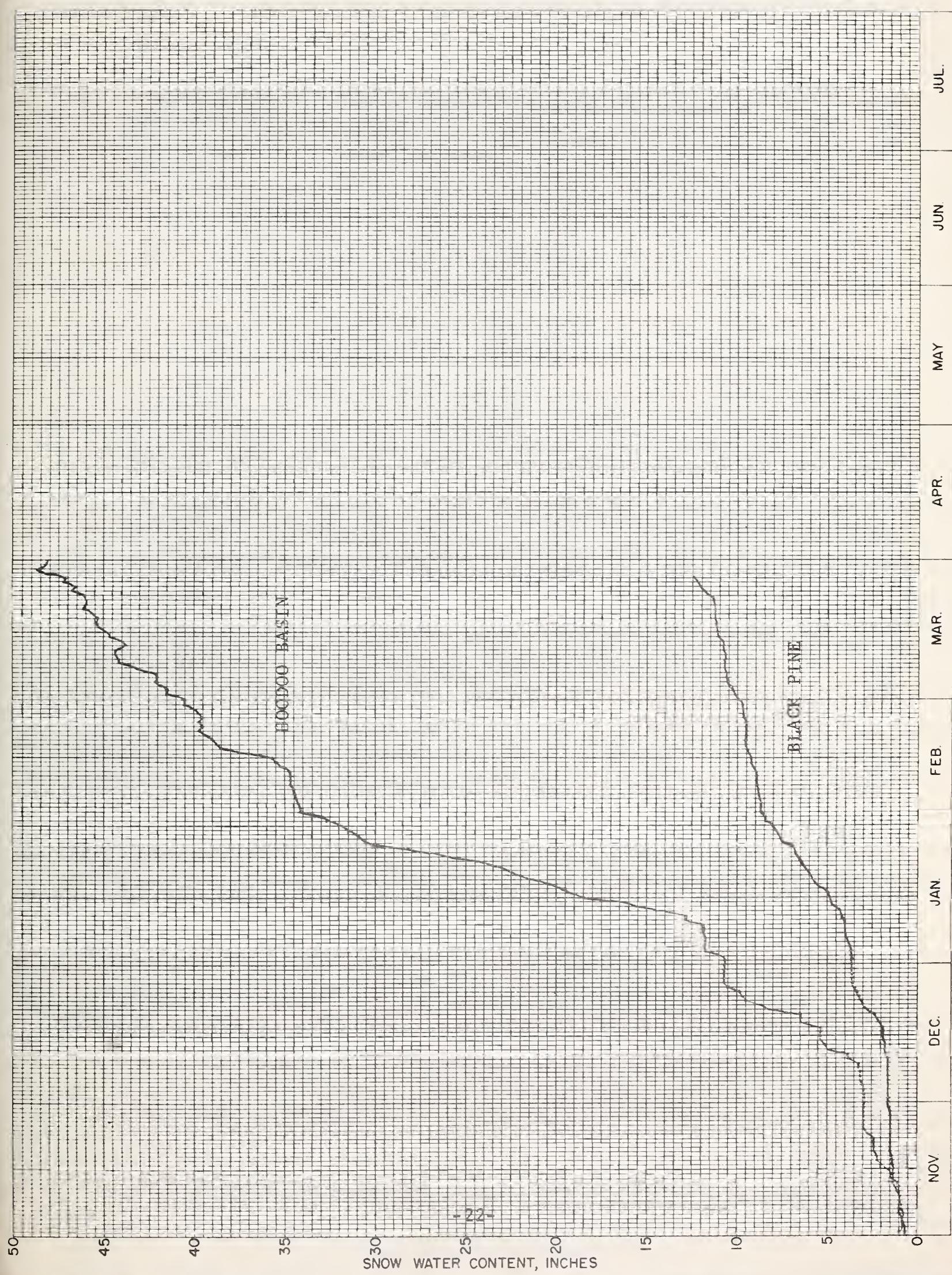


SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: CLARK FORK





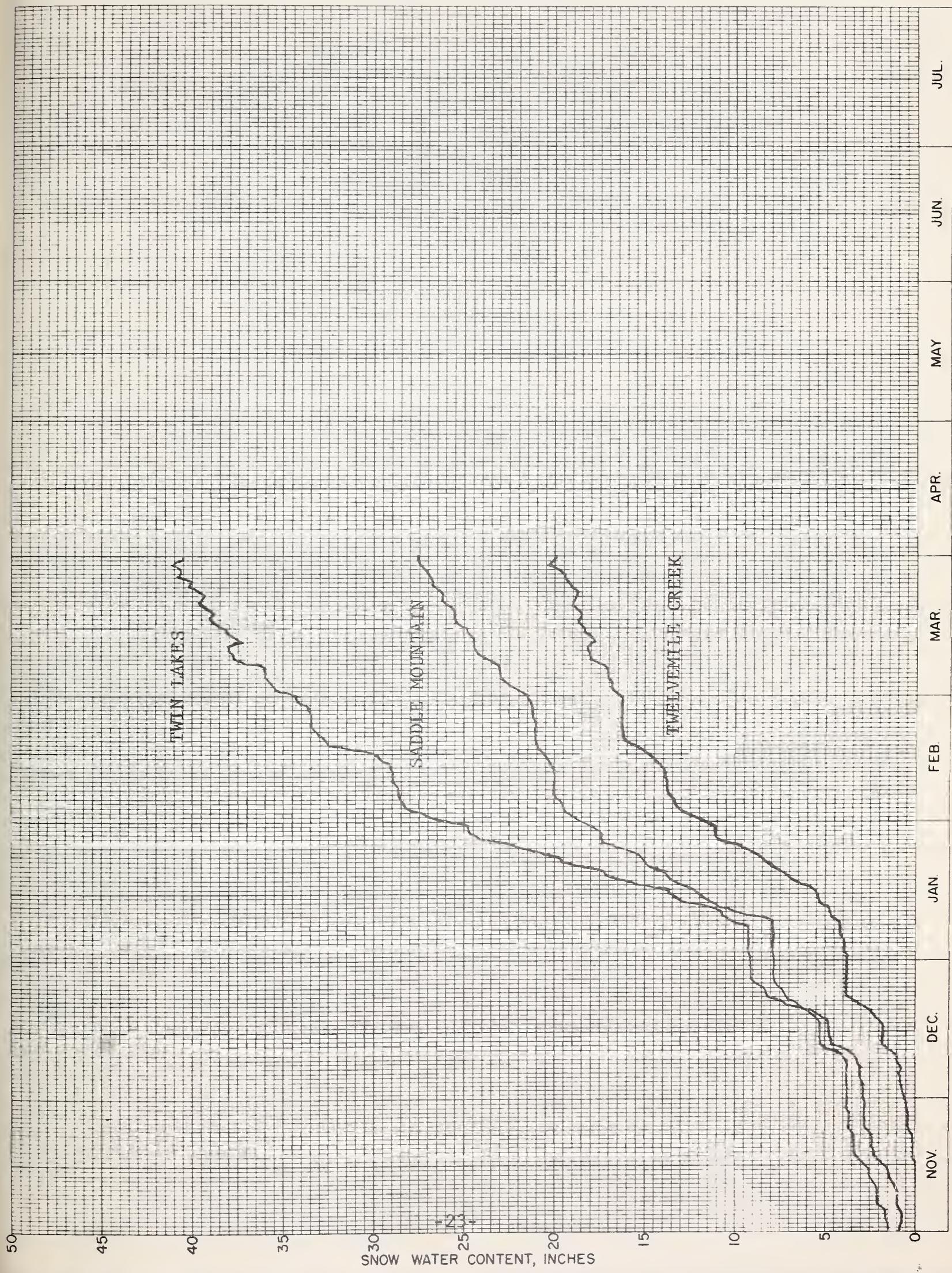
SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

BITTERROOT





SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

MADISON

JUL.

JUN.

MAY

APR.

MAR.

FEB.

JAN.

DEC.

NOV.

MADISON PLATEAU

LION MOUNTAIN

WEST YELLOWSTONE

-24-

SNOW WATER CONTENT, INCHES



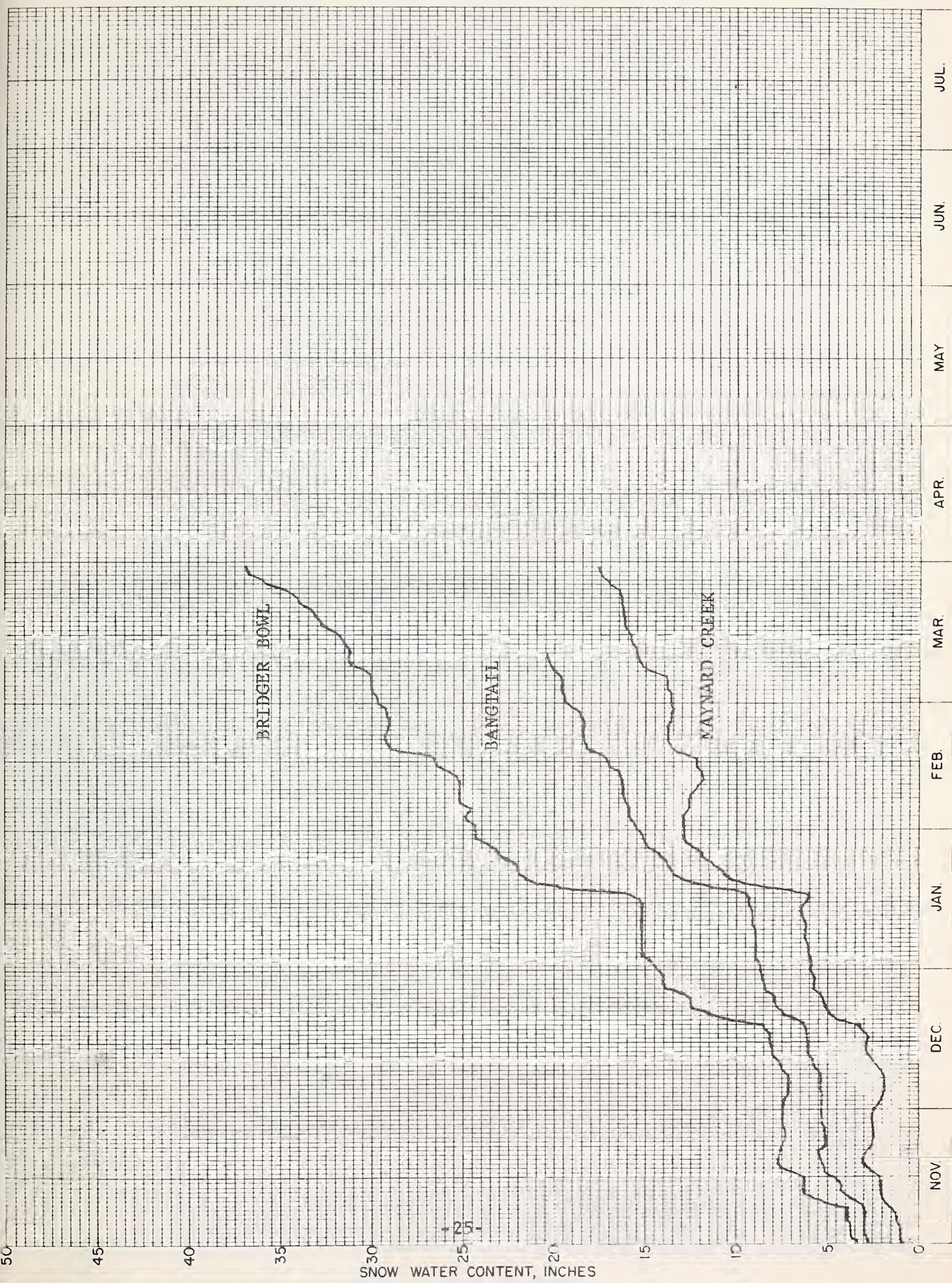
SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

GALLATIN





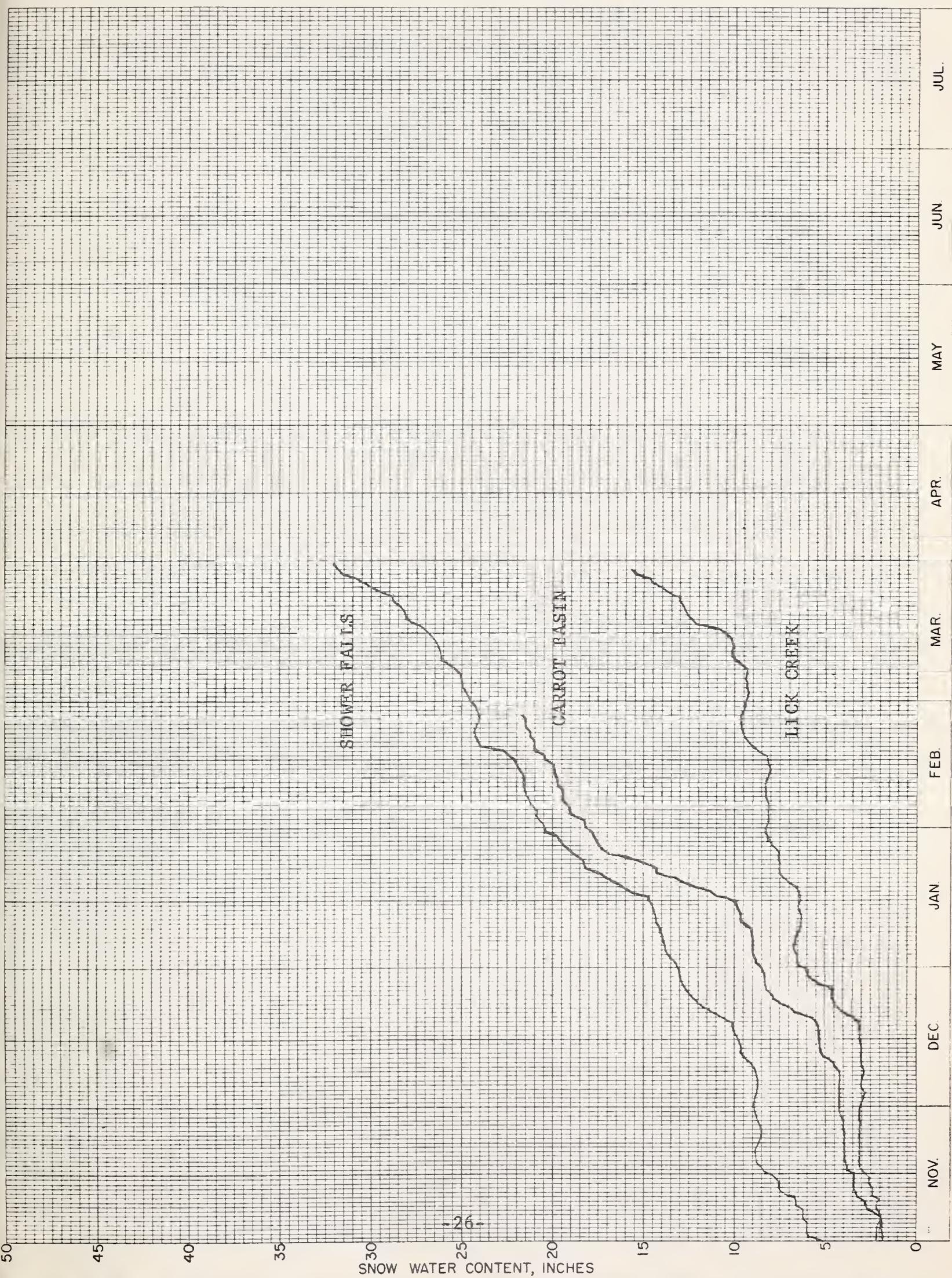
SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: _____

GALLATIN



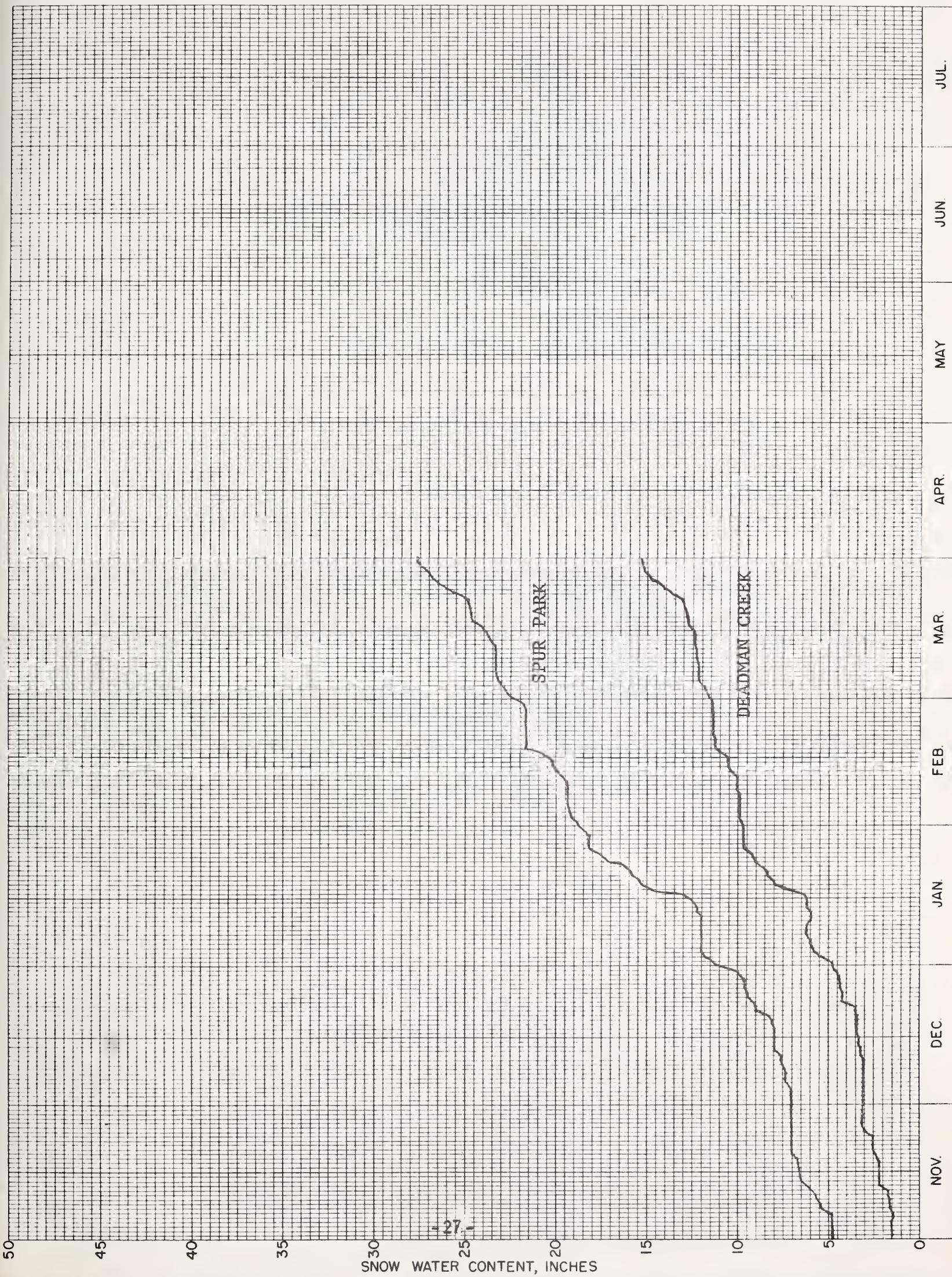


SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: JUDITH-JEFFERSON-MISSOURI



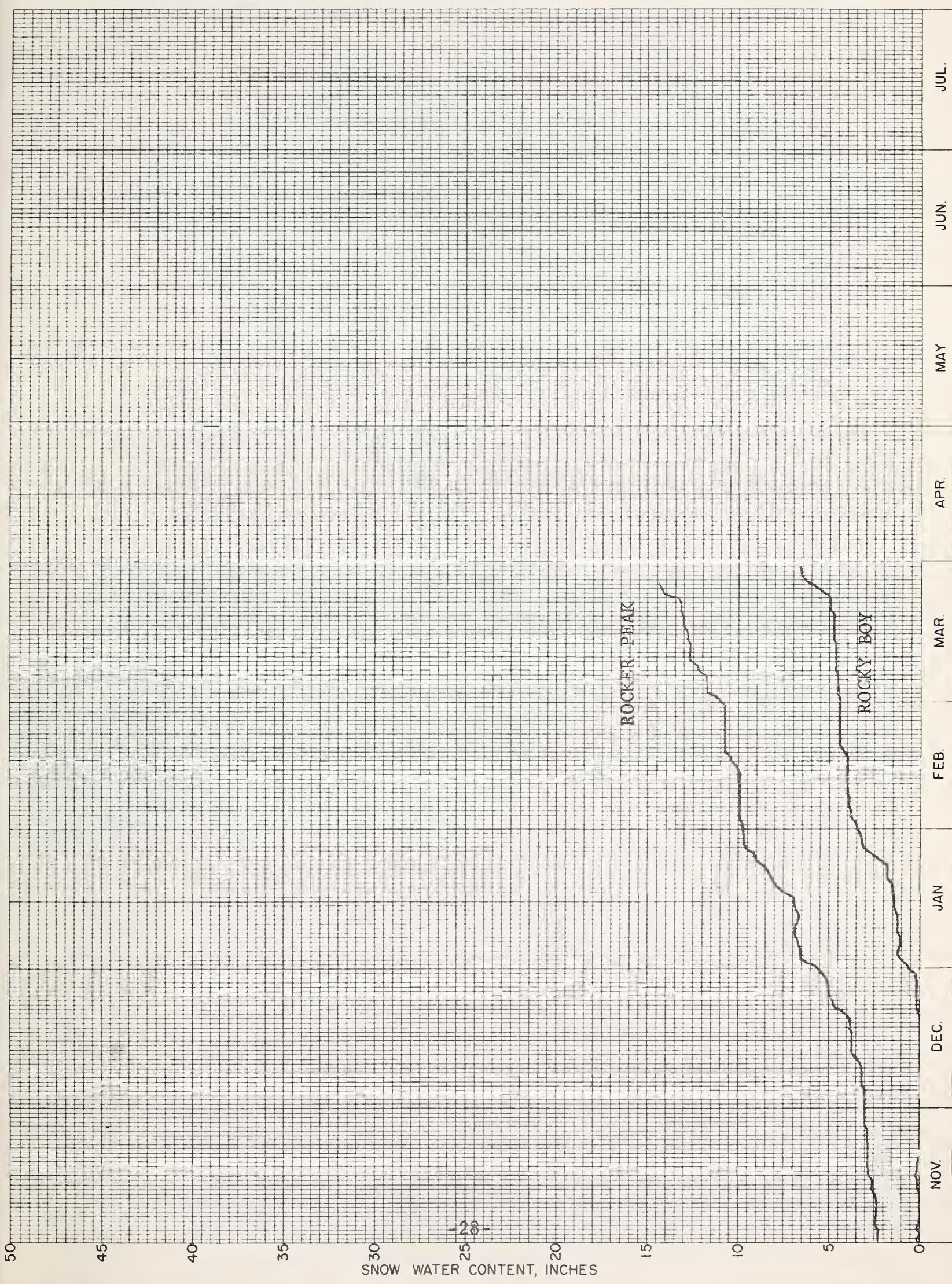


SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: JUDITH-JEFFERSON-MISSOURI



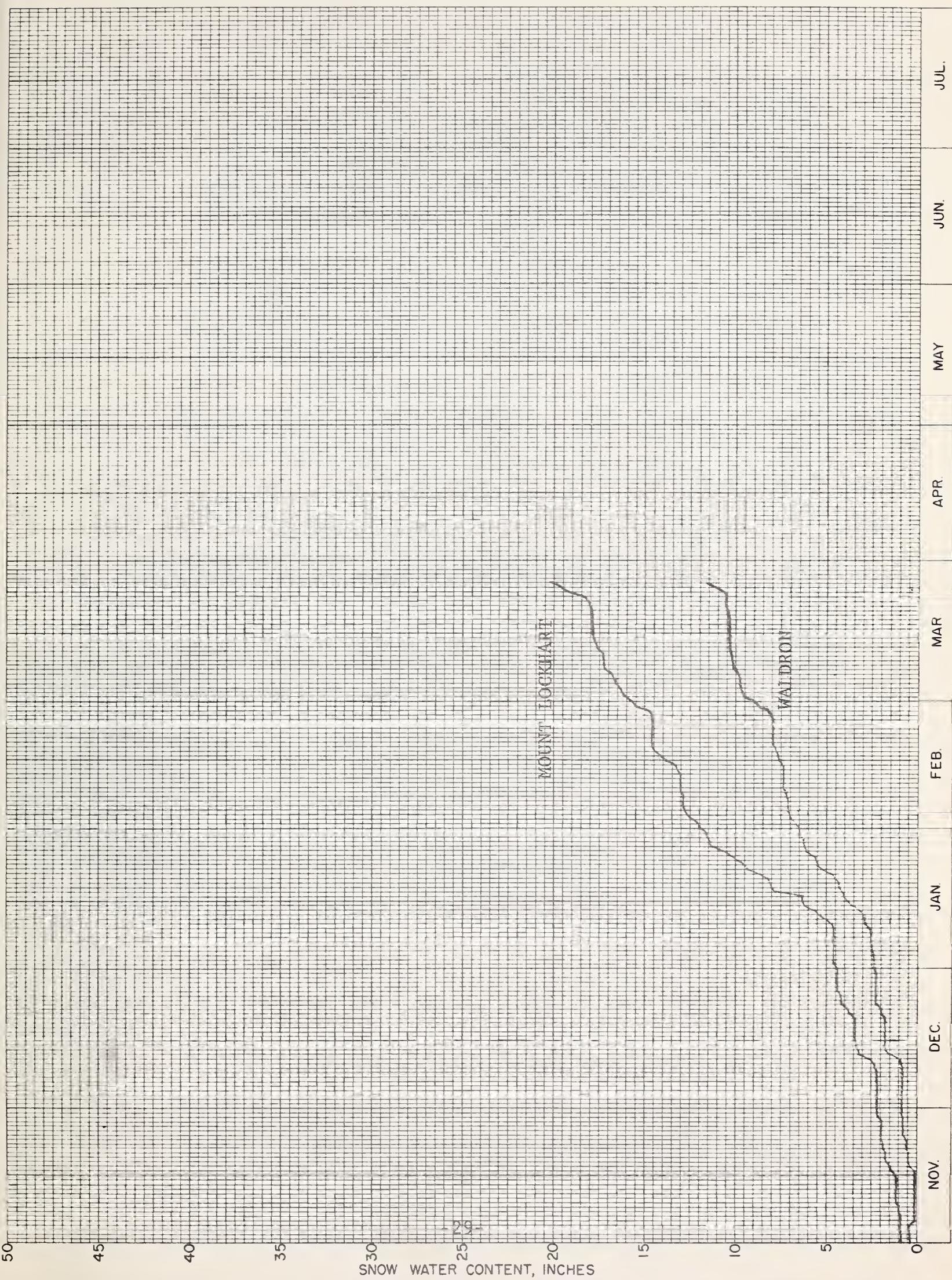


SNOW PILLOW DATA
WATER YEAR 1970

No. _____

Elev. _____

Drainage: SUN





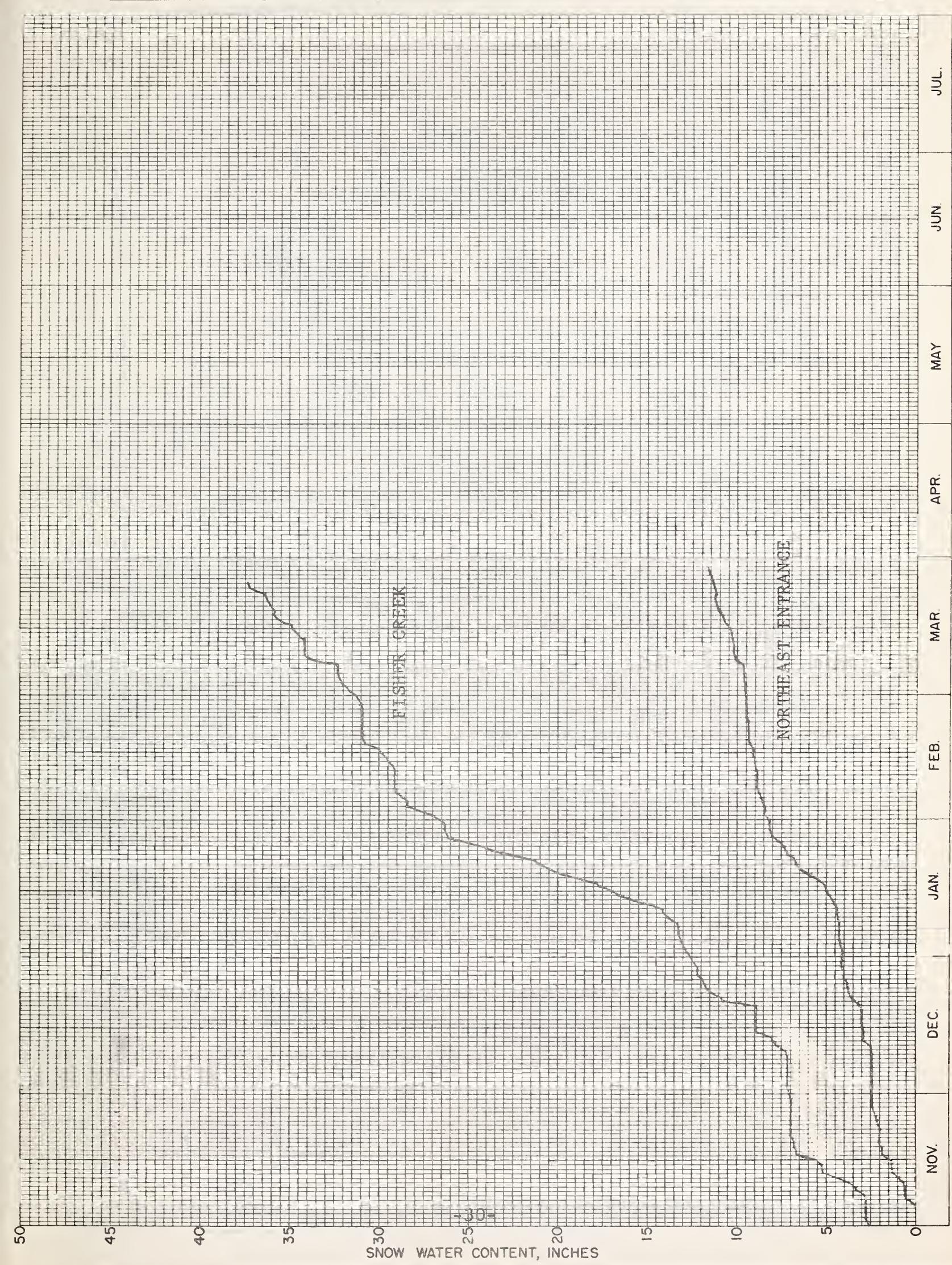
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WATER YEAR 1970

No. _____

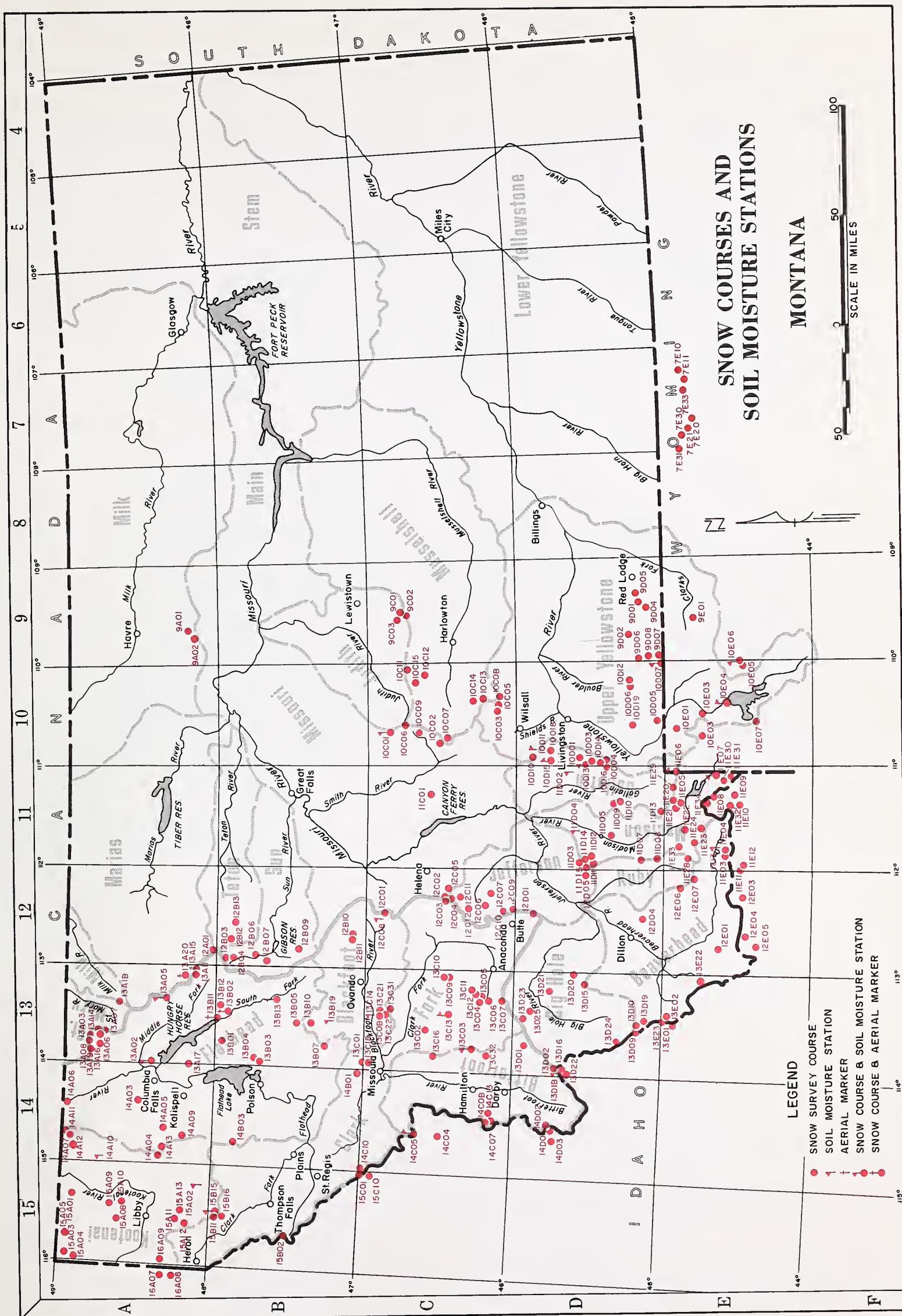
Elev. _____

Drainage: _____

YELLOWSTONE







INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SNOW COURSES

Drainage Basin & Course Name	Number	Elev.	Sec.	Dep.	Record	Measuring Dates by 2/	Mass by 2/	Measuring Dates by 2/	Record	Measuring Dates by 2/	Mass by 2/
COLUMBIA RIVER BASIN											
Kootenai River	15A011	5,000	6	2-N	312	1969	3,4,5,5,5,6	1			
Bald Eagle Peak	15A011	5,600	6	328	1969	2,3,4,5,5,6	1				
Bald Eagle Mountain	15A004	5,500	6	328	1956	3,4,5,5,5,6	1				
Bartee Creek	15A011	5,500	3	268	1956	3,4,5,5,5,6	2				
Bartee Mtn	15A016	480	3	268	1965	3,4,5,5,5,6	2				
Bartee Trail	15A015	3,800	5	258	1965	3,4,5,5,5,6	1				
Bitter Creek	15A010	3,900	5	328	1965	2,3,4,5,5,6	1				
Bitter Creek	15A003	5,000	12	308	1937	3,4,5,5,6	1,2				
British Creek	15A003	5,000	12	308	1969	3,4,5,5,6	1,2				
Brown Creek	15A003	5,000	12	308	1969	2,3,4,5,5,6	1				
Cedar Grove	15A003	4,100	35	288	1969	2,3,4,5,5,6	1				
Davis Creek	15A004	5,400	20	378	1969	2,3,4,5,5,6	1				
Garver Creek	15A005	4,250	18	378	1969	2,3,4,5,5,6	1				
Graves Creek	15A011	3,000	1	368	1937	3,4,5,5,6	1				
Jack's Lake	15A013	6,400	18	378	1969	3,4,5,5,6	1				
Keefer Creek	15A019	3,300	9	308	1969	3,4,5,5,6	1				
Last Sod	15A012	5,100	5	278	1969	2,3,4,5,5,6	1				
Mountain Creek	15A012	6,000	4	368	1937	3,4,5,5,6	1				
Red Mountain Creek	15A012	6,000	20	378	1937	3,4,5,5,6	1				
Stahl Creek	15A007	6,050	20	378	1969	3,4,5,5,6	1				
Wessel Divide	15A007	6,050	20	378	1937	3,4,5,5,6	1				
FLATHEAD RIVER											
Bear Lake	15A003	5,150	11	288	1961	3,4,5	1,5				
Bear Lake	15A011	5,900	11	288	1964	3,4,5	1,5				
Big Creek	15A003	6,750	7	228	1988	3,4,5	6				
Camp Mtn	15A011	6,600	24	318	1962	3,4,5	6				
Dwarf Mountain	15A002	5,600	24	318	1937	1,2,3,4,5	6				
Fatty Creek	15A004	5,500	8	228	1962	3,4,5	6				
Flatop Mountain	15A018	6,000	12	358	1968	3,4	6				
Gritin Creek Divide	15A009	5,150	28	288	1960	3,4,5	6				
Gunsight Lake	15A012	6,300	35	268	1964	1,2,3,4,5	5,6				
Hill Roaring Divide	15A003	5,750	15	328	1942	1,2,3,4,5	5,6				
Holbrook	15A013	4,530	18	218	1951	1,2,3,4,5	5				
Klahiethon	15A006	3,890	14	378	1954	3,4	6				
Logan Creek	15A005	4,300	34	308	1947	3,4,5	6				
Marlins Pass	15A005	4,200	34	308	1934	1,2,3,4,5	6				
Mineral Creek	15A016	4,000	29	358	1957	3,4,5	6				
North Fork Jct	15A002	6,300	3	178	1941	3,4,5	6				
Spotted Bear Mountain	15A002	7,000	20	258	1948	1,2,3,4,5	6				
Tributary Lake	15A001	6,100	9	258	1968	1,2,3,4,5	6				
Upper Holland Lake	15A005	3,580	24	268	1934	1,2,3,4,5	6				
CLARK FORK RIVER											
Black Pine	15C013	7,100	26	88	1959	1,2,3,4,5,5,6	1,2				
Copiar Creek	15C010	5,700	1	158	1942	3,4,5	6				
Cotter Mine	15C010	6,250	12	188	1947	1,2,3,4,5	6				
Coyote Hill	15C010	4,200	12	188	1947	1,2,3,4,5	6				
El Dorado Mine	15C009	7,800	12	188	1949	3,4	6				
Fred Burr Pass	15C011	8,000	12	658	1957	3,4,5	6				
Gold Creek Lake	15C010	2,200	14	88	1949	3,4,5	6				
North Lake Trail	15C010	4,800	11	168	1965	1,2,3,4,5	6				
Padoo Basin	15C010	6,000	17	168	1967	1,2,3,4,5	5,6				
Padoo Creek	15C001	5,900	16	148	1937	1,2,3,4,5	5,6				
Intergard	15C004	6,450	16	158	1936	1,2,3,4,5	6				
Lubrecht Forest No. 3	15C011	10,000	10	158	1951	1,2,3,4,5	6				
Lubrecht Forest No. 4	15C022	4,650	23	138	1951	1,2,3,4,5	6				
N. Fork Elk Creek	15C006	4,040	11	138	1951	1,2,3,4,5	6				
Red Lion	15C012	7,100	22	88	1958	1,2,3,4,5,5,6	1				
Sakakho Summit	15C003	10,000	20	688	1937	3,4,5	6				
Slide Rock Mountain	15C002	7,100	35	108	1937	3,4,5	6				
Southern Cross	15C005	6,500	8	158	1936	2,3,4	6				
Spring Gulch	15C018	6,000	12	148	1961	1,2,3,4,5	8				
Stuart Hill	15C006	6,500	19	588	1936	1,2,3,4,5	6				
Stuart Mountain	15C001	7,400	6	148	1936	1,2,3,4,5,5,6	8				
T.V. Mountain	15C001	7,400	33	158	1956	1,2,3,4,5,5,6	8				
BITTERROOT RIVER											
Abrose	15C132	6,480	28	98	1960	3,4,5	6				
Coyote Meadow Trail	15C032	7,000	20	488	1960	3,4,5	6				
Gibbons Pass	15D002	7,100	4	258	1967	1,2,3,4,5,5,6	1,3				
Lost Horse Camp	15C007	5,940	5	488	1960	3,4,5	6				
Naz Perce Pass	15C001	6,570	25	188	1937	3,4,5	6				
Naz Perce Pass	15C006	5,500	27	358	1962	1,2,3,4,5,5,6	1				
Neveline Creek	15C013	5,600	36	368	1968	1,2,3,4,5,5,6	1				
Tin Lakes	15C008	6,510	32	588	1960	1,2,3,4,5,5,6	1				
ST. MARY RIVER BASIN											
Hudson Bay Divide	15A018	5,800	24	348	1962	3,4,5	3,9				
Iceland Lake No. 3	15A003	5,900	21	358	1922	5	3,9				
Josephine Lover No. 9	15A014	4,900	22	358	1955	5	3,9				
Mount Allen No. 7	15A007	5,700	27	358	1922	5	3,9				
Pleasant Pass No. 6	15A008	5,800	36	368	1937	5	3,9				
Platiragan No. 8	15A008	5,800	24	128	1955	2,3,4	5				
Bloody Dick	15D010	7,600	12	88	1948	3,4,5	6				
Carter Creek	15D004	7,600	22	88	1963	3,4,5	6				
Def Grot Lake	15D022	8,600	24	128	1965	2,3,4	5				
Elk Horn Spring	15D015	8,800	21	458	1935	1,2,3,4	5				
Gold Stone	15D009	8,100	158	1948	1,2,3,4	5					
Lakeview Canyon	15D004	7,600	26	148	1948	1,2,3,4	5				
Lakeview Ridge	15D003	7,600	27	148	1948	1,2,3,4	5				
Lamb Ridge	15D013	7,600	9	105	1948	1,2,3,4	5				
Lamb Ridge	15D013	8,000	13	105	1967	3,4	5				
Trail Creek	15D002	8,000	15	105	1967	3,4	5				
White Pine Ridge	15D002	8,000	16	105	1968	3,4	5				
BEAVERHEAD RIVER											
Bald Eagle Peak	15D014	7,000	21	458	1935	1,2,3,4	5				
Camp Senita	15D015	7,000	21	458	1935	1,2,3,4	5				
Goat Mountain	15D007	7,000	27	148	1948	1,2,3,4	5				
Mount Lockhart	15D012	7,000	27	148	1948	1,2,3,4	5				
Waldron	15D013	7,000	19	105	1948	1,2,3,4	5				
Wron Creek	15D004	7,000	19	105	1948	1,2,3,4	5				
Wron Ridge	15D003	7,000	19	105	1948	1,2,3,4	5				
MISSOURI RIVER BASIN											
Upper Missouri River	15A001	11,000									

Agencies and Organizations Cooperating in Montana Snow Surveys

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Montana Forests and Ranger
Districts

U. S. Geological Survey
Helena, Montana
Portland, Oregon

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Portland, Oregon
Seattle, Washington
Walla Walla, Washington
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St. Ignatius, Montana

U. S. Weather Bureau
Helena, Montana
Portland, Oregon
Kansas City, Missouri

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and Wildlife
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Agricultural Experiment Station
Bozeman, Montana

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Water Rights Branch, Dept. of
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